LOGAN - CACHE AIRPORT AUTHORITY BOARD MEETING FEBRUARY 6, 2025

APPROVED MINUTES

The Logan-Cache Airport Authority Board convened in a regular session on Thursday February 6, 2025 at 8:30 a.m. in the Cache County Historic Courthouse, County Council Chambers, 199 North Main, Logan, Utah.

ATTENDANCE

Members of the Airport Authority Board in Attendance:

David Zook - Chair -- Cache County Executive

John Kerr - Vice Chair - At large appointment by Airport Authority Board

Mayor Holly Daines - Logan City Mayor

Jeannie F. Simmonds - Logan City Council - At large appointment by Logan City

Brett Hugie – At large appointment by Logan City

Ryan Snow – At large appointment by Cache County

Kirk Jensen – Logan City Economic Development Director – Ex-officio Advisory Member

Shawn Milne – Director of Regional Economic Development – Ex-officio Advisory Member

Members of the Airport Authority Board Absent:

Keegan Garrity - Cache County Council - At large appointment by Cache County

Also in Attendance:

Bob Low – Airport Manager

Kasey Maxwell – Airport

Valerie Black - Airport

Wesley Bingham - Cache County Finance Director

Robert Stephens – Logan City Fire Department

Conner Butterfield – Lochner Engineering

Judd Hill – Lochner Engineering

Antony Congram – Lochner Engineering

Aaron Dyches - USU Aviation

Baron Wesemann – USU Aviation

Scott Weaver – Leading Edge Aviation

Kim Hall

Dan Boston

Mary Halling

Robert Kidd

Janeen Allen – Minutes

1. CALL TO ORDER

Chairman David Zook called the meeting to order at 8:30 a.m. and welcomed new board member, Keegan Garrity, who replaced Karl Ward on the Cache County Council. Garrity was unable to

attend the meeting but will be in attendance at the next board meeting. Zook also welcomed Brett Hugie, who was recently reappointed by Logan City. He expressed appreciation to Hugie for his willingness to continue to serve on the board.

2. ACTION ITEMS

a. Approval of Minutes – January 2, 2025

ACTION: Motion was made by Brett Hugie and seconded by Ryan Snow to approve the minutes of January 2, 2025 as written. The vote in favor was unanimous, 6-0 (Karl Ward absent for vote)

b. ELECTION OF BOARD CHAIR AND VICE CHAIR

Chairman Kerr requested nominations for Board Chair and Vice Chair.

ACTION: Mayor Holly Daines nominated David Zook for Chair and John Kerr for Vice Chair. There were no other nominations. John Kerr called for a vote. The vote in favor was unanimous, 6-0 (Karl Ward absent for vote)

C. APPOINTMENTS OF LOGAN CITY AND CACHE COUNTY ECONOMIC DEVELOPMENT DIRECTORS AS EX OFFICIO BOARD MEMBERS (Attachment A).

Chairman Zook expressed that a review of the Airport Authority Bylaws, shows there was an expectation that the economic development directors from both Logan City and Cache County would be able to serve as ex officio members of the board. He then appointed Kirk Jensen from Logan City and Shawn Milne from Cache County as ex officio members of the board and asked them to come and take seats on the dais.

Mr. Zook introduced Mr. Milne and gave a short background including his experience with aviation related matters on the state level. Mayor Daines then introduced Mr. Jensen as one with vast economic development experience and history working with the airport.

3. MANAGER'S REPORT

Bob Low presented the Manager's Report consisting of the following:

• Year-End Budget Surplus Purchases – Some remaining budget from last year was used to purchase a FOD mat for the airport. FOD stands for Foreign Objects and Debris. The FOD mat is pulled behind a vehicle and picks up debris that falls onto taxi lanes, taxiways and runways. Also purchased with remaining budget was a new pressure washer to clean lights on taxiways and runways that birds have messed on. They were also able to order a PAPI digital aiming device kit that directs the light to be at a certain angle on an aircraft's final approach. The device helps measure the angle to make sure it is correct for approaching aircraft.

Paraglider Restrictions at Airport – Mr. Low was informed by the FAA upon their
investigation of an incident at our airport decided to severely restrict paraglider use at the
airport requiring anyone wanting to fly a paraglider to call the air route traffic control center
for approval which will more than likely will not be given. The reason they gave him for this
restriction is that the airport is too busy for paraglider use.

Mr. Low explained that the paragliders operate on the abandoned runway off to the west. They come in on the gravel road and through a gate which they have the com. He also complained that there have been a few instances where they have tracked mud back down the taxiway and left it for the airport staff to clean up.

Potential Investor – Mr. Low has been approached by an investor from Montreal, Canada
who would like to develop some land at our airport. Chairman Zook recommended forming a
committee with the two new economic development director board members and Mr. Low.
He then asked if any other board members would like to be on the committee. Jeannie
Simmonds volunteered to be on it. He asked the new committee to follow up on this issue
and then report back to the airport authority board.

Mr. Hugie asked about the status of all the Part 139 Certification Inspection issues. He wanted to get an update on where everything is on that front. A quick discussion determined that all timely issues have been resolved except the paint project that requires the weather to warm up before they can complete it.

4. DISCUSSION ITEMS

a. LAND LEASE REVIEW - BOB LOW

Mr. Low provided a revised copy of the lease agreement that the subcommittee has been working on. He indicated that recommendations from the Board are included in this version. Mr. Low thanked Marv Halling who presented at the last meeting for pointing out the unfairness of the uniform lease rate to small hangar owners.

A lengthy discussion followed with input from Lochner Engineering Representative, Judd Hill. The board members discussed the fairness of charges for small and large hangars, the importance of efficient use of land and the need for fairness in the lease agreements. Jeannie Simmonds recommended a consistent rate of 43 cents per square foot for all hangars (footprint only) or a lesser amount for hangars (footprint only) with additional charges for land around hangars.

At the end of the discussion, the Board agreed to review the lease agreement and provide direction to the manager to finalize the document. Chairman Zook asked Mr. Low to provide the board members with a redline version of the lease agreement reflecting all the changes for their review. It will be on the next agenda as an action item.

b. Master Plan Update - Judd Hill, Lochner Engineering

Mr. Hill said that the Master Plan draft is complete and is currently under review by the Technical Advisory Committee.

Board members discussed potential development areas and the need for public input and FAA approval.

c. 2025 Capital Projects - Connor Butterfield, Lochner

Mr. Butterfield provided the Board with a list of the 2025 Airport Capital Projects including:

- Paint Project Bids in and waiting for warmer weather
- Taxilane Kilo Federal and State project 1.1 million total project cost local match \$30,000
- Snow Removal Equipment Estimating \$250,000 Federal and State project Local match \$6.000
- Taxiway Charlie State and Local
- PAPI Project Still waiting to hear from the FAA

Board members discussed the importance of these projects and the need for timely completion.

d. FINANCIAL REPORT (Attachment B).

Mr. Zook provided board members with a current financial report and said he would like to have one at each meeting going forward.

Jeannie Simmonds requested a person from the Finance Office come and explain the budget to the board members.

Mr. Zook said it will be on the agenda for the next meeting.

e. Open Items

- Professor Wesemann provided an update on the 2025 Airport Open House, including planned events and coordination with UDOT Division of Aeronautics. Board members discussed the importance of the open house in showcasing aviation to the community and the need for proper planning and coordination.
- Mayor Holly Daines and John Kerr provided updates on ongoing projects, including the tower repair and the lease expansion for Leading Edge Aviation. The Board agreed to review and finalize these projects at the next meeting.

5. NEXT SCHEDULED BOARD MEETING

Thursday, February 6, 2025 at 8:30 a.m. – Cache Historic Courthouse, Council Chambers

6. CLOSED MEETING

ACTION: Motion was made by Mayor Holly Daines and seconded by Jeannie Simmonds to enter a closed meeting to discuss the purchase, exchange, or lease of real property pursuant to Utah Code 52-4-205(d). The vote in favor was unanimous, 6-0 (Karl Ward absent for vote)

10:14 am – Mayor Daines left the meeting 10:30 am – Jeannie Simmonds left the meeting

ACTION: Motion was made by Brett Hugie and seconded by Ryan Snow to go out of the closed meeting and reconvene in a regular Airport Authority Board meeting. The vote in favor was unanimous, 4-0 (Mayor Holly Daines, Jeannie Simmonds, and Karl Ward absent for vote)

Upon reconvening, a few items were brought up by board member, Brett Hugie, for clarification, including

- Airport Emergency Plan
- Leading Edge Expansion and Site Request Mr. Snow clarified that his motion was intended to give direction to Leading Edge to move forward in the process.
- Clarification regarding the \$20,000 grant received by the Airport Authority Board in determining how the funds will be spent.

7. ADJOURN

The meeting adjourned at 10:42 a.m.

LOGAN – CACHE AIRPORT AUTHORITY BOARD FEBRUARY 6, 2025

ATTACHMENT A

FAA CIVIL RIGHTS – TITLE VI FAA CONTRACT PROVISIONS



<u>Disclaimer:</u> The purpose of this document is to assist Airports with their compliance efforts, it does not alter or modify the terms of any applicable statute or regulation, is not a substitute for reading the regulation or the FAA Contract Provision Guidelines, nor does it constitute legal advice.

Federal laws and regulations require that an Airport include specific clauses in certain contracts regardless of whether or not the project is federally funded.

The term "contractor" is understood to mean a contractor or subcontractor and means one who participates through a contract or subcontract (at any tier).

All text provided in each listed provision is noted as "MANDATORY TEXT," which means it must be used without modification. Please see the guidelines in the FAA link below for further information.

FAA Contract Provision Guidelines: Federal Certifications

https://www.faa.gov/sites/faa.gov/files/2023-01/combined-federal-contract-provisions-2023-1-20.pdf

Civil Rights - Title VI - FAA Contract Provisions

CIVIL RIGHTS

The Airport must include this provision in all contracts, subcontracts, lease agreements or transfer agreements. MANDATORY TEXT

Civil Rights General

In all its activities within the scope of its airport program, the Contractor agrees to comply with pertinent statutes, Executive Orders, and such rules as identified in Title VI List of Pertinent Nondiscrimination Acts and Authorities to ensure that no person shall, on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

Included the additional provision with the above without modification; the applicable text is based on whether the contract is a general contract or whether the contract is a lease or transfer agreement.

For General Contract Agreements contracts that do not involve property agreements.

The above provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract.

For Lease Agreements & Transfer Agreements; property agreements such leases of concession space in a terminal and leases where a physical portion of the airport is transferred for use.

If the Contractor transfers its obligation to another, the transferee is obligated in the same manner as the Contractor. The above provision obligates the Contractor for the period during which the property is owned, used or possessed by the Contractor and the airport remains obligated to the Federal Aviation Administration.

CIVIL RIGHTS - TITLE VI ASSURANCES

The Airport must include this provision in all solicitations for bids, requests for proposals, any work, or any negotiated agreements. MANDATORY TEXT

Title VI Solicitation Notice:

Roswell Air Center, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, [select businesses, or disadvantaged business enterprises or airport concession disadvantaged business enterprises] will be afforded full and fair opportunity to submit bids in response to this invitation and no businesses will be discriminated against on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in consideration for an award.

The Airport must include this provision in all contracts, subcontracts, or agreements.

MANDATORY TEXT

Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC § 2000d et seq., 78 stat. 252) (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 USC§4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973 (29 USC § 794 et seq.), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);
- The Age Discrimination Act of 1975, as amended (42 USC § 6101 et seq.) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (49 USC § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (PL 100-259) (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990 (42 USC § 12101, et seq) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration's Nondiscrimination statute (49 USC § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs [70Fed. Reg. 74087 (2005)];

• Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681, et seq).

The Airport must include this provision in all contracts, subcontracts, or service contracts with utility companies.

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Nondiscrimination Requirements/ Title VI Clauses for Compliance

Compliance with Nondiscrimination Requirements:

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor"), agrees as follows:

- Compliance with Regulations: The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
- 2. Nondiscrimination: The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
- 3. Solicitations for Subcontracts, including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the contractor's obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.
- 4. Information and Reports: The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the Sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
- Sanctions for Noncompliance: In the event of a Contractor's noncompliance with the nondiscrimination provisions of this contract, the Sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.
- 6. Incorporation of Provisions: The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations, and directives issued pursuant there to. The Contractor will take action with respect to any subcontract or procurement as the Sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with

litigation by a subcontractor, or supplier because of such direction, the Contractor may request the Sponsor to enter into any litigation to protect the interests of the Sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States. The above provision binds the Contractor and subcontractors from the bid solicitation period through the completion of the contract.

In addition -The Airport must include this provision as a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the Sponsor with other parties for all transfers of real property acquired or improved under Airport Improvement Program

This applies to agreements such as leases where a physical portion of the airport is transferred for use, for example a fuel farm, apron space, or a parking facility. MANDATORY TEXT

Clauses for Transfer of Real Property Acquired or Improved Under the Airport Improvement Program

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the Sponsor pursuant to the provisions of the Airport Improvement Program grant assurances:

- A. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:
 - 1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a Federal Aviation Administration activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, Guidelines for Contract Provisions for Obligated Sponsors and Airport Improvement Program Projects Issued on January 20, 2023 Page 25 licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Nondiscrimination Acts and Regulations listed in the Title VI List of Pertinent Nondiscrimination Acts and Authorities (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
- B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Nondiscrimination covenants, (Title of Sponsor) will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.*
- C. With respect to a deed, in the event of breach of any of the above Nondiscrimination covenants, the (Title of Sponsor) will have the right to enter or re-enter the lands and facilities thereon, and the above-described lands and facilities will there upon revert to and vest in and become the absolute property of the (Title of Sponsor) and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

The Airport must include this provision in any future (deeds, leases, licenses, permits, or similar instruments) entered into by the Sponsor/Airport with other parties for the construction or use of, or access to, space on, over, or under real property acquired or improved under Airport Improvement Program

This applies to agreements such as leases of concession space in a terminal MANDATORY TEXT

Clause for Construction/Use/Access to Real Property Acquired Under the Activity, Facility or Program

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by (*Title of Sponsor*) pursuant to the provisions of the Airport Improvement Program grant assurances.

- A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Title VI List of Pertinent Nondiscrimination Acts and Authorities.
- B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non-discrimination covenants, *(Title of Sponsor)* will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities Guidelines for Contract Provisions for Obligated Sponsors and Airport Improvement Program Projects Issued on January 20, 2023 Page 26 thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.*
- C. With respect to deeds, in the event of breach of any of the above Non-discrimination covenants, (*Title of Sponsor*) will there upon revert to and vest in and become the absolute property of (*Title of Sponsor*) and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

LOGAN – CACHE AIRPORT AUTHORITY BOARD FEBRUARY 6, 2025

ATTACHMENT B

CACHE COUNTY GOVERNMENT REVENUES WITH COMPARISON TO BUDGET FOR THE 1 MONTHS ENDING JANUARY 01, 2025

AIRPORT FUND

		ENCUMBRANCE	YTD ACTUAL	TOTAL	BUDGET	UNEARNED	PCNT
	INTERGOVERNMENTAL REVENUE						
277-33-70105	LOGAN CITY-SHARED NET EXP	.00	.00	.00	100,000.00	100,000.00	
	TOTAL INTERGOVERNMENTAL REVE	.00	.00	.00	100,000.00	100,000.00	
	MISCELLANEOUS REVENUE						
277-36-10000	INTEREST	.00	.00	.00	30,000.00	30,000.00	.0
277-36-15000	GAS TAX REFUND	.00	.00	.00	8,000.00	8,000.00	.0
277-36-16000	LANDING FEES	.00	.00	.00	5,500.00	5,500.00	.0
277-36-18000	FUEL FLOW -STORAGE FEES	.00	.00	.00	20,000.00	20,000.00	.0
277-36-19000	FIRE DEPARTMENT STANDBY FEES	.00	.00	.00	5,000.00	5,000.00	.0
277-36-90000	SUNDRY REVENUE	.00	.00	.00	4,000.00	4,000.00	
	TOTAL MISCELLANEOUS REVENUE	.00	.00	.00	72,500.00	72,500.00	.0
	AIRPORT LAND LEASE REVENUES						
277-37-80000	AIRPORT FEES-LAND LEASE INCOM	.00	.00	.00	113,400.00	113,400.00	.0
	TOTAL AIRPORT LAND LEASE REVE	.00	.00	.00	113,400.00	113,400.00	.0
	CONTRIBUTIONS & TRANSFERS						
	CONTRIBUTION CACHE COUNTY	00	.00	.00	100,000.00	100,000.00	.0
277-38-20000	APPROPRIATED FUND BALANCE	.00	.00	.00	629,022.00	629,022.00	.0
277-38-90000	AFFRORKIATED FUND BALANCE	.00					
	TOTAL CONTRIBUTIONS & TRANSFE	.00	.00	.00	729,022.00	729,022.00	.0
				00	1 014 022 00	1,014,922.00	.0
	TOTAL FUND REVENUE	.00	.00	.00	1,014,922.00	1,014,522.00	

CACHE COUNTY GOVERNMENT EXPENDITURES WITH COMPARISON TO BUDGET FOR THE 1 MONTHS ENDING JANUARY 01, 2025

AIRPORT FUND

		ENCUMBRANCE	YTD ACTUAL	TOTAL	BUDGET	UNEXPENDED	PCNT
	AIRPORT						
277-4460-110	FULL TIME EMPLOYEES	.00	.00	.00	162,673.00	162,673.00	.0
277-4460-115	OVERTIME	.00	.00	.00	3,000.00	3,000.00	.0
277-4460-120	PART TIME EMPLOYEES	.00	.00	.00	62,428.00	62,428.00	.0
277-4460-130	EMPLOYEE BENEFITS	.00	.00	.00	114,521.00	114,521.00	.0
277-4460-210	SUBSCRIPTIONS & MEMBERSHIPS	.00	.00	.00	100.00	100.00	.0
277-4460-220	PUBLIC NOTICES	.00	.00	.00	300.00	300.00	.0
277-4460-230	TRAVEL	.00	.00	.00	4,000.00	4,000.00	.0
277-4460-240	OFFICE SUPPLIES	.00	.00	.00	1,500.00	1,500.00	.0
277-4460-250	EQUIPMENT SUPPLIES & MAINT	.00	.00	.00	46,000.00	46,000.00	.0
277-4460-251	NON CAPITALIZED EQUIPMENT	.00	.00	.00	13,000.00	13,000.00	.0
277-4460-260	BUILDING & GROUNDS	.00	.00	.00	25,000.00	25,000.00	.0
277-4460-261	SNOW REMOVAL	.00	.00	.00	65,000.00	65,000.00	.0
277-4460-262	VEGETATION CONTROL - CHEMICAL	.00	.00	.00	12,000.00	12,000.00	.0
277-4460-263	VEGETATION CONTROL - MOWING	.00	.00	.00	5,000.00	5,000.00	.0
277-4460-270	UTILITIES	.00	.00	.00	27,000.00	27,000.00	.0
277-4460-280	COMMUNICATIONS	.00	.00	.00	5,000.00	5,000.00	.0
277-4460-290	FUEL	.00	.00	.00	10,000.00	10,000.00	.0
277-4460-291	UNION PACIFIC PROPERTY LEASE	.00	.00	.00	20,000.00	20,000.00	.0
277-4460-311	PROFESSIONAL SERVICES	.00	.00	.00	1,000.00	1,000.00	.0
277-4460-330	EDUCATION & TRAINING	.00	.00	.00	44,000.00	44,000.00	.0
277-4460-510	INSURANCE	.00	.00	.00	18,000.00	18,000.00	.0
277-4460-621	MISC BOARD SERVICES/TRAVEL	.00	.00	.00	8,000.00	8,000.00	.0
277-4460-625	LOGAN FIRE - STANDBY FEES	.00	.00	.00	8,000.00	8,000.00	.0
	TOTAL AIRPORT	.00	.00	.00	655,522.00	655,522.00	.0

CACHE COUNTY GOVERNMENT EXPENDITURES WITH COMPARISON TO BUDGET FOR THE 1 MONTHS ENDING JANUARY 01, 2025

AIRPORT FUND

		ENCUMBRANCE	YTD ACTUAL	TOTAL	BUDGET	UNEXPENDED	PCNT
	CONTRIBUTIONS						
277-4800-477	TRANSFER OUT - AIRPORT CAPITAL	.00	.00	.00	359,400.00	359,400.00	.0
	TOTAL CONTRIBUTIONS	.00	.00	.00	359,400.00	359,400.00	
	TOTAL FUND EXPENDITURES	.00	.00	.00	1,014,922.00	1,014,922.00	
	NET REVENUE OVER EXPENDITURES	.00	.00	.00	.00	.00	.0

CACHE COUNTY GOVERNMENT REVENUES WITH COMPARISON TO BUDGET FOR THE 1 MONTHS ENDING JANUARY 01, 2025

CAPITAL PROJECT AIRPORT

		ENCUMBRANCE	YTD ACTUAL	TOTAL	BUDGET	UNEARNED	PCNT
477-33-15000	FED GRANT - SCASDP	.00	.00	.00	1,203,000.00	1,203,000.00	.0
477-33-44402	STATE GRANT	.00	.00	.00	862,200.00	862,200.00	.0
	TOTAL SOURCE 33	.00	.00	.00	2,065,200.00	2,065,200.00	.0
	SOURCE 38						
477-38-10277	TRANSFER IN - AIRPORT	.00	.00	.00	359,400.00	359,400.00	.0
	TOTAL SOURCE 38	.00	.00	.00	359,400.00	359,400.00	.0
	TOTAL FUND REVENUE	.00	.00	.00	2,424,600.00	2,424,600.00	.0

CACHE COUNTY GOVERNMENT EXPENDITURES WITH COMPARISON TO BUDGET FOR THE 1 MONTHS ENDING JANUARY 01, 2025

CAPITAL PROJECT AIRPORT

		ENCUMBRANCE	YTD ACTUAL	TOTAL	BUDGET	UNEXPENDED	PCNT
	AIRPORT						
477-4460-730	IMPROVEMENTS	.00	.00	.00	2,222,600.00	2,222,600.00	.0
477-4460-740	CAPITALIZED EQUIPMENT	.00	.00	.00	202,000.00	202,000.00	.0
	TOTAL AIRPORT	.00	.00	.00	2,424,600.00	2,424,600.00	
	TOTAL FUND EXPENDITURES	.00	.00	.00	2,424,600.00	2,424,600.00	.0
	NET REVENUE OVER EXPENDITURES	.00	.00	.00	.00	.00	.0

LOGAN – CACHE AIRPORT AUTHORITY BOARD FEBRUARY 6, 2025

ATTACHMENT C

2022 lease 2022 lease changes 2024 lease 2024 changes LOGAN-CACHE AIRPORT AUTHORITY GROUND LEASE AGREEMENT

This lease is made and entered into by and between the Logan-Cache Airport Authority, which shall be called the "LESSOR" in this agreement and the "LESSEE" as indicated below:

Naı	ne:	
Ado	dres	s:
Ph	one:	·
Em	ail <u>:</u>	
Coı	ntac	t <u>.</u>
		ideration of the mutual terms and conditions contained in this agreement, the parties hereto by agree as follows:
A.	LE	CASED PREMISES
		ssor hereby leases to Lessee and Lessee hereby leases from Lessor the following Hangar Site cated at the Logan-Cache Airport:
	De	esignated Number:
	Ta	x ID Number:
	То	tal Site Hangar Dimensions:
В.	RE	ENT
	1.	Lessee shall pay rent to the Lessor for the Hangar Site in the amount of \$ per year.
	2.	Annual rent payments shall be payable in advance and due on or before July 1 st of each year during the term of this lease. For the initial and final lease periods, the amount of rent due will be prorated for the respective periods based on the rental rate due for that period. Lessee agrees to pay a late charge of ten percent (10%) of the amount due for any amount not received within thirty (30) days of the due date.
	3.	The Lessor and the Lessee agree that the rent due under this agreement shall be increased by two percent (2% per year) at least the social security cost of living percentage per year. All

rents due under this agreement will be increased for the cost of living adjustment as of July 1st of the year regardless of the specific date when the lease was entered into. Prepaid rent shall not be adjustable and shall be considered rent paid in full for the period prepaid.

- 4. The Lessee will also be assessed a one-time hookup fee of \$1,000.00 or the current Logan City connection fee, whichever is greater, for sewer and water service.
- 5. Lessee shall be responsible for all utility services, charges and costs of installation and maintenance. Utility services include but are not limited to water, sewer, power, gas, and telecommunications.

C. TERM

1. The initial term of this lease shall be for the following period of 10 years from:

______ to ______ to ______
The lease may be renewed under the same terms and conditions for an additional ten year term by Lessee giving Lessor advance written notice at least 180 days prior to expiration of the initial term of this lease.

2. The lease may be terminated by either party upon written notice given at least 180 days six (6) months prior to termination.

D. IMPROVEMENTS

- 1. Lessee has the right to construct and maintain the hangar and aviation-related improvements on the premises subject to the terms of this lease.
- 2. Any hangars or improvements, including any modifications, must comply with the provisions of the Uniform Building Code, Uniform Fire Code, and other uniform codes and standards adopted by the City, as well as any applicable federal or state laws relating to airport structures. No hangar or permitted improvement may be erected or modified without a city building permit having first been obtained by the Lessee and permission obtained from the Lessor. Permission shall not be unreasonably withheld.
- 3. Upon the termination of this lease, Lessee shall have the right to remove the hangar and any improvements erected by the Lessee; provided, however, that the Lessee, upon such removal, shall leave the Hangar Site clean and free of debris, concrete, litter, abandoned equipment and materials. The removal must be completed within sixty (60) days from the date of termination. Lessor shall have the option, upon receipt of notice from the Lessee of the intention of the Lessee to remove the hangar or improvements, to purchase the hangar or improvements at a fair market value. Lessor shall exercise the option by written notice thereof within thirty (30) days of the notice of intention to terminate.

E. RESTRICTIONS

- 1. The premises' use must be primarily devoted to housing and maintaining aircraft and aviation-related equipment. Peripheral use for storage of other non-hazardous items is allowed. Lessee may not use the premises primarily for non-aviation related purposes.
- 2. Storage of fuel on premises is not allowed except in regular, built-in aircraft fuel tanks. Fuel dispensing from permanently-installed containers at the fuel farm may be allowed, but only where the tanks and pumps are installed in accordance with fire and building codes, and where the fuel is used only by the Lessee. Selling fuel to other parties is not allowed unless the Lessee meets standards established by the Logan-Cache Airport Authority and pays a dispensing fee to the Logan-Cache Airport Authority.

- 3. Users may self-fuel their own aircraft in the designated area away from the hangars. Fuel hauled to the airport for this purpose may not be kept inside the hangars. Aircraft are not allowed to be fueled inside the hangars.
- 4. No signs may be displayed on the exterior of any hangar or improvement, other than the hangar number, without the prior written consent of the Lessor. Such approval shall not be unreasonably withheld.

F. COMPLIANCE WITH APPLICABLE LAWS

Lessee shall at all times comply with all applicable federal, state, county and city laws, rules, ordinances, and regulations for the use of the hangar, airport facilities, and the airport including, but not limited to, those rules and regulations promulgated by the Federal Aviation Administration, as well as the airport zoning regulations contained in the Master Plan adopted by the city for the Logan-Cache Airport. Any violation of any applicable federal, state, county and city laws, rules, ordinances and regulations shall be deemed a violation of this lease.

G. Lessor Reservations

- 1. Lessor reserves the exclusive right to develop or improve the airport or any portions thereof and take any necessary action or steps to protect the aerial approaches of the airport against obstructions including, but not limited to, height, building and use restrictions as to the premises leased hereunder if Lessor reasonably deems that the buildings and improvements or the use thereof by the Lessee constitutes an obstruction or danger to the safe operation of the airport.
- 2. Lessor shall reserve the right to enter any hangar at reasonable times for the purpose of inspecting the premises for Fire Code issues, safety factors and compliance with the Uniform Building Code and other applicable federal, state and county codes and requirements, and to verify the identification and location of aircraft located within the hangar upon ten (10) days notice.

H. DEFAULT

In the event the Lessee fails to pay any rental payments as required by the terms of this lease or in the event that the Lessee fails to comply with any other provision of this agreement, Lessor shall have the right, after thirty (30) days notice to the Lessee of such default or failure to comply and upon the failure of the Lessee to cure the default, to terminate this agreement and to remove the Lessee from the premises. Upon such removal, the Lessor may retain possession of the Hangar Site premises and lease the same to other parties as it may, in its discretion, deem reasonable and necessary. Upon such termination, the Lessee agrees to peaceably vacate the premises and to remove the hangar, improvements, and any equipment located therein within sixty (60) days from the date of said termination. Upon the failure to remove the hangar, improvements, or equipment within that time period, such hangar, improvements, or equipment shall revert to the Lessor or be removed by the Lessor and Lessee shall be responsible for any and all expenses incurred by Lessor for the removal. Any amounts that are the responsibility of the Lessee are due and payable to Lessor upon presenting proof of the expenses incurred to the Lessee. Lessor retains its option to acquire the hangar and any improvements as provided in Paragraph D.

I. PROHIBITION AGAINST ASSIGNMENT

This lease may not be assigned nor sublet without the prior written consent of the Lessor. Said consent shall not be unreasonably withheld. In the event the hangar is sold, the new owner will be required to execute a new lease agreement with Lessor.

J. INDEMNIFICATION AND LIABILITY INSURANCE

- 1. Lessee shall indemnify and hold the Lessor harmless from any and all damages incurred by Lessee, any of its affiliates, guests, and/or invitees, and Lessee shall indemnify and hold Lessor harmless for any and all damages incurred to the property of the Lessee. Lessee further agrees to indemnify any person or property of the Lessee and to protect and save harmless the Lessor from any liability or expenses of defense or otherwise by reason of any injury to any person or any property upon the premises or surrounding areas during the term of this lease including reasonable attorney's fees and cost.
 - If Lessee maintains a pre-existing fuel tank upon the premises, Lessee shall obtain and maintain a general liability insurance policy designating the Lessor as a co-insured party with minimum coverage of \$1,000,000.00 general liability. Lessee shall provide Lessor a certificate of insurance on an annual basis showing the above coverage.
- 2. Lessee shall obtain and maintain a general liability insurance policy, in full force and effect at all times during the term of the lease, with minimum general liability coverage of \$1,000,000.00 combined single limit per occurrence. The policies are to contain, or be endorsed to contain the following provisions:
 - a. The Logan-Cache Airport Authority, its officers, officials, employees and volunteers are to be covered as additional insured. The coverage shall contain no special limitations on the scope of protection afforded to the Logan-Cache Airport Authority, its officers, officials, employees and volunteers.
 - b. Lessee's insurance shall be primary insurance as respect to the Logan-Cache Airport Authority, its officers, officials, employees and volunteers. Any insurance maintained by the Logan-Cache Airport Authority, its officers, officials, employees and volunteers shall be in excess of the lessee's insurance and shall not contribute with it.
 - c. Lessee shall provide Lessor a certificate of insurance on an annual basis showing the above coverage. If no current certificate of insurance is provided to Lessor, the Lessee will be deemed to be in default under this agreement.

K. Subordination

This lease shall be subordinate to the provisions of any existing or future agreement between the Lessor and the United States relative to the operation or maintenance of the airport if such agreement is required as a condition precedent to the obtaining or expenditure of federal funds for the development and use of the airport.

L. Construction Performance

If Lessee is building a hangar, Lessee agrees to obtain a building permit within ninety (90) (30) days from the date Lessee signs this agreement. It is also agreed that building will commence within one hundred twenty (120) (90) days from the Lessee signing this agreement. An extension on the building of the hangar may be requested from the Lessor. The extension request must be made to the Lessor in writing if more than one hundred twenty (120) days is required. be made to the Lessor in writing if more than one hundred twenty (120) days is required. The hangar must be completed within one hundred eighty (180) days of commencement of construction. The Lessee is responsible for securing the construction site to assure that it is safe for tenants and visitors, and does not obstruct or interfere with business activities at the airport.

M. GOVERNING LAW

This agreement is to be interpreted in accordance with the laws of the State of Utah.

N. Notice

Should Notice be required under this agreement, any and all correspondence shall be provided in writing to the parties and given by either personal delivery with a signed acknowledgment of receipt; by registered or certified mail, postage prepaid, with return receipt requested; by an established, nationally-recognized commercial courier service, charge prepaid, with written proof of delivery; or by electronic mail with confirmation copy sent by an established, nationally-recognized commercial courier service, as provided above, within 24 hours after the time and date of the electronic mail transmission. Written Notice shall be addressed to the following designated representatives:

Lessee:	
Name:	
Address:	
Email:	
Lessor:	
Name:	
Address:	
Email:	
IN WITNESS THEREOF, the parties have execute shall be deemed an original, on the day of	

LESSOR:	LESSEE:	
Logan-Cache Airport Authority		
By:	By:	
Board Chair	Signature	

LOGAN – CACHE AIRPORT AUTHORITY BOARD FEBRUARY 6, 2025

ATTACHMENT D



Self Serve Storage Tank Reconsideration

1 message

Scott Weaver <sweaver@leaviation.com>

Tue, Feb 4, 2025 at 9:11 AM

To: "bob.low@cachecounty.gov" <bob.low@cachecounty.gov>

Cc: "ryansnowcpa@gmail.com" <ryansnowcpa@gmail.com>, Brett Hugie <Brett.Hugie@cve.com>, "John Kerr - Logan-Cache Airport - UT (kerrjohna@comcast.net)" <kerrjohna@comcast.net>, Janeen Allen <janeen.allen@cachecounty.gov>, "david.zook@cachecounty.gov>, "holly.daines@loganutah.org" <holly.daines@loganutah.org>

Good morning, Mr. Low,

I am requesting the Airport Authority's reconsideration in allowing Leading Edge Aviation to continue with installing a self-serve avgas storage tank on the south end of the ramp. March 2022 the Airport Authority approved Leading Edge Aviation to install a 2,000-gallon avgas self-service fuel tank. Shortley after I began the project Mr. John Kerr and Mr. Bill Francis had asked me to stop the project as they wanted to explore other options, and I complied. Attached is the location site Armstong approved and my engineering drawing for the tank.

We would like to increase the size of the tank and install a 15,000-gallon avgas self-serve storage tank this Summer.

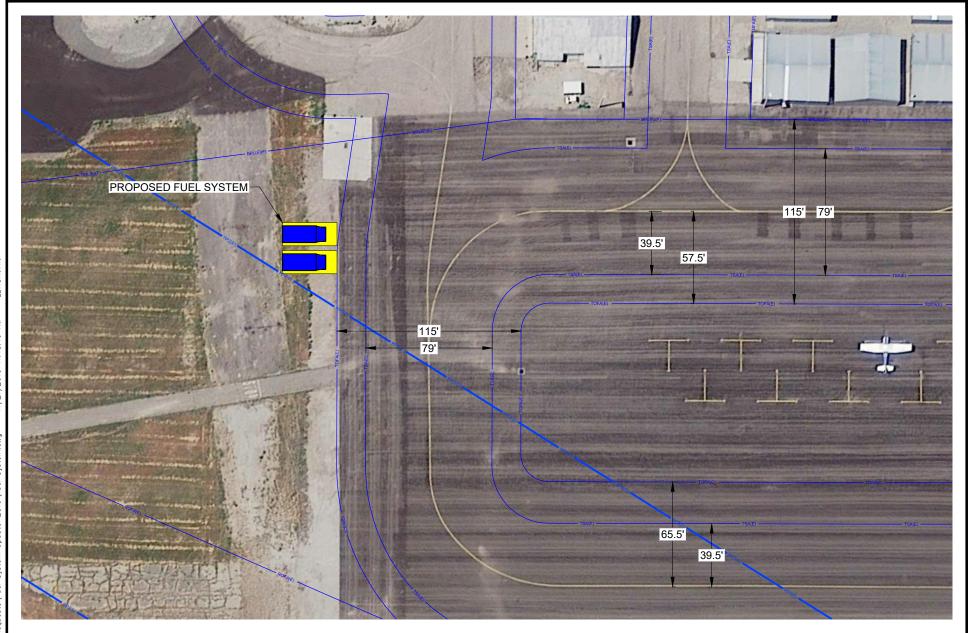
Thank you for your reconsideration,

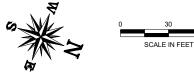
Scott Weaver Leading Edge Aviation

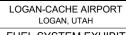
2 attachments

Fuel System-Exhibit.pdf

Logan_UT Plan Set 011720.pdf
9070K











	SHEET INDEX				
SHEET#	SHEET TITLE				
T-100	COVER SHEET + SITE DATA				
T-110	GENERAL NOTES				
T-120	ABBREVIATIONS, LEGEND AND NOTES				
C-100	EXISTING CONDITIONS, EROSION & SEDIMENT CONTROL PLAN				
C-200	PROPOSED SITE PLAN				
D-100	CONSTRUCTION DETAILS				
D-200	SIGNAGE & TANK LABELING DETAILS & SPECIFICATIONS				
M-100	TANK SHOP DRAWINGS				
M-200	FUELING SYSTEM EQUIPMENT SPECIFICATIONS				
M-210	FUELING SYSTEM EQUIPMENT SPECIFICATIONS				
M-220	FUELING SYSTEM EQUIPMENT SPECIFICATIONS				
M-230	FUELING SYSTEM EQUIPMENT SPECIFICATIONS				
M-240	FUELING SYSTEM EQUIPMENT SPECIFICATIONS				
E-100	ELECTRICAL NOTES				
E-200	ELECTRICAL SITE, GROUNDING & BONDING PLAN				
E-300	ELECTRICAL DIAGRAMS & PANELBOARD SCHEDULE				
E-400	NEC HAZARD ZONE DEFINITION PLAN & DETAILS				

SCOPE OF WORK

- INSTALL SEDIMENT & EROSION CONTROL MEASURES AS DEFINED HEREIN IN ACCORDANCE W/ STATE, COUNTY & AIRPORT REQUIREMENTS.
- 2. EXCAVATE & PREPARE SOIL FOR NEW SLAB AS DIRECTED HEREIN.
- 3. INSTALL NEW ELECTRICAL WIRING AND AS DEFINED HEREIN.
- 4. INSTALL NEW REINFORCED TANK SLAB.
- INSTALL NEW ELECTRICAL SERVICE CONNECTION
- INSTALL NEW 2,000 GALLON AST W/ DISPENSER, HOSE REEL & ASSOCIATED EQUIPMENT FOR STORAGE & DISPENSING OF AVIATION GASOLINE (AVGAS).

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH IBC 2018 CONCRETE CONSTRUCTION (IBC 1704.4)

- 1. INSPECTIONS OF REINFORCING STEEL
- 2. PLACEMENT & CURING
- 3. FORM WORK
- 4. INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO & DURING PLACEMENT OF CONCRETE
- 5. FRESH CONCRETE SHALL BE SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS. PERFORM SLUMP & AIR CONTENT TESTS. & DETERMINE TEMPERATURE OF CONCRETE.
- 6. INSPECT FORM WORK FOR SHAPE, LOCATION & DIMENSIONS OF CONCRETE MEMBER BEING FORMED.

SOILS (IBC 1704.7)

- SOIL SITE PREPARATION
- 2. FILL PLACEMENT
- 3. IN PLACE DENSITY 4. SUBGRADE FOR FOUNDATIONS OR SLABS

DESIGN TEAM / APPLICANT INFORMATION



N.D. ERYOU, PhD, PE CONSULTING ENGINEER 1460 BREEZY WAY

SPRING HILL, FL 34608 PHONE: (352) 684-7275 FAX: (800) 660-6724

EMAIL: alex@eryouengineering.com

PROPERTY INFORMATION

LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 84321

CONTRACTOR INFORMATION

AMERICAN ENVIRONMENTAL ASSESSMENT CORPORATION 3977 AVIATION LOOP SANFORD, FLORIDA 32773

PHONE: (631) 586-2000

POINT OF CONTACT: PAUL SUNDBY PSUNDBY@AMERICAN-ENVIRONMENTAL.NET

FACILITY OPERATOR INFORMATION

LEADING EDGE AVIATION 2500 NORTH AIRPORT DRIVE, SUITE 2 LOGAN, UTAH 84321

PHONE: (435) 752-5955

GENERAL NOTES

- THE CONTRACTOR SHALL REVIEW ALL DOCUMENTS AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS AND SHALL CONFIRM THAT WORK IS BUILDABLE AS SHOWN. ANY CONFLICTS OR OMISSION, ETC., SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO THE PERFORMANCE OF ANY WORK IN QUESTION.
- DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS SHALL GOVERN IN ALL INSTANCES. IN CASE OF CONFLICT, NOTIFY THE ENGINEER.
- CONTRACTOR SHALL COORDINATE AND OBTAIN ALL NECESSARY APPROVALS AND INSPECTIONS AS REQUIRED BY LOCAL GOVERNING
- THE CONTRACTOR IS EXPECTED TO KEEP PREMISES CLEAN DURING CONSTRUCTION. TRASH WILL NOT BE ALLOWED TO ACCUMULATE IN THE SPACE DURING CONSTRUCTION. ALL DEBRIS SHALL BE REMOVED DAILY. FINAL CLEAN UP AND REPAIR IS PART OF THIS WORK. REMOVE ALL DUST, DEBRIS, OILS, STAINS, FINGERPRINTS AND LABELS FROM ALL EXPOSED FINISHED SURFACES. SAFE WORKING AREA AND CONDITIONS SHALL BE MAINTAINED AT ALL TIMES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FURNISH AND INSTALL ALL WORK FIXTURES AND EQUIPMENT NECESSARY TO COMPLETE PROJECT AS PER PLANS. THE CONTRACTOR IS TO DELIVER PROJECT CLEAN AND READY FOR USE AS APPROVED BY OWNER.
- THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES BEFORE COMMENCING WORK. CARE SHALL BE TAKEN TO PROTECT ALL UTILITIES WHICH ARE TO REMAIN.
- ALL REQUESTS FOR SUBSTITUTIONS OF ANY SPECIFIED ITEMS SHALL BE SUBMITTED IN WRITING TO THE ENGINEER AND WILL BE CONSIDERED ONLY IF THE ALTERNATE PROPOSED IS PROVEN TO BE MORE ADVANTAGEOUS TO THE OWNER WITH RESPECT TO DELIVERY DATE, QUALITY, OR COST. UNDER NO CIRCUMSTANCES WILL THE ENGINEER BE REQUIRED TO PROVE THAT A PRODUCT PROPOSED FOR SUBSTITUTION IS OR IS NOT OF EQUAL QUALITY TO THE PRODUCT SPECIFIED.
- PERFORM ALL WORK IN ACCORDANCE WITH ACCEPTED CONSTRUCTION STANDARDS. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE PLANS AND SPECIFICATIONS UNLESS A VARIANCE IS APPROVED BY THE LANDLORD AND OR ENGINEER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR A COMPLETE AND OPERATIONAL TENANT SPACE, INCLUDING ALL FINISHES, MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS AND FIRE PROTECTION SYSTEMS.
- 10. ALL WORK PERFORMED SHALL BE IN STRICT COMPLIANCE WITH GOVERNING FEDERAL, STATE, AND LOCAL BUILDING CODE REQUIREMENTS, EXECUTED IN ACCORDANCE WITH ACCEPTED INDUSTRY STANDARDS AND SHALL CONFORM TO SPECIFIC REGULATIONS AS MANDATED BY THE OWNER, THE TENANT, AND
- THESE DRAWINGS ARE THE PROPERTY OF N.D. ERYOU, PHD, PE CONSULTING ENGINEER, INC. AND ARE NOT TO BE REPRODUCED OR COPIED IN WHOLE OR PART. THESE DRAWINGS ARE TO BE USED FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN AND ARE NOT TO BE USED ON ANY OTHER PROJECT.

INSTALLATION OF A NEW ABOVE GROUND FUEL TANK LEADING EDGE AVIATION @ LOGAN-CACHE AIRPORT 2500 N. 900W., LOGAN, UT 84321



KEY MAP

NOT TO SCALE



AREA OF WORK, SEE PROPOSED SITE PLAN ON SHEET C-200

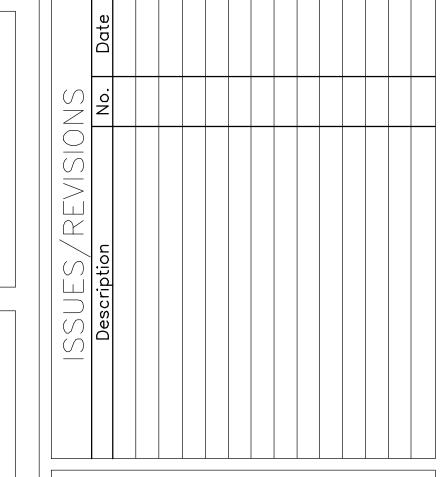
ENLARGED LOCATION MAP NOT TO SCALE

CODE REFERENCES

- INTERNATIONAL BUILDING CODE (2018)
- INTERNATIONAL FUEL GAS CODE (2018) - ICC INTERNATIONAL MECHANICAL CODE (2018)
- INTERNATIONAL FIRE CODE (2018)
- NATIONAL ELECTRICAL CODE, ARTICLE 515, BULK STORAGE PLANTS - NFPA ~ NATIONAL ELECTRICAL CODE (2018)
- − NFPA−1 ~ LIFE SAFETY CODE
- NFPA 704 ~ STANDARD FOR IDENTIFICATION OF HAZARDOUS MATERIALS - NFPA 407 ~ AIRCRAFT FUEL SERVICING
- NFPA 30 ~ FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE
- NFPA 70 ~ NATIONAL ELECTRIC CODE (2011)
- AMERICAN PETROLEUM INSTITUTE, #1529 (AVIATION FUELING HOSE) - AMERICAN PETROLEUM INSTITUTE, #1542 (AIRPORT EQUIPMENT MARKING) - LOCAL UTILITY AUTHORITY REGULATIONS
- (IECC) INTERNATIONAL ENERGY CONSERVATION CODE (2018)

RECOGNIZED STANDARDS & GUIDELINES

- UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
- INTERNATIONAL BUILDING CODE (2018) - NATIONAL ELECTRICAL CODE, ARTICLE 515, BULK STORAGE PLANTS
- NFPA 407, AIRCRAFT FUEL SERVICING - NFPA 30, FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE
- AMERICAN PETROLEUM INSTITUTE, #1542~AIRPORT EQUIPMENT MARKING - FAA ADVISORY CIRCULAR 150/5300-13, AIRPORT DESIGN



NOTICE IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A PROFESSIONAL ENGINEER, OR LICENSED ARCHITECT, TO ALTER THIS DRAWING

PhD

Florid

51 Castello Drive, Naples, Florida

LE AVIATION

LEADING EDGE AVIATION 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

American

3977 AVIATION LOOP, SANFORD, FLORIDA 32773 PHONE: (631) 586-2000

LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321 SHEET DESCRIPTION:

COVER SHEET

SITE DATA

SEAL & SIGNATURE

PROJECT NO.: AEAC-LOGAN DRAWING BY: MSK CHK. BY: AGN

T-100

CADD FILE NO. UTAH P.E. # 5013586-2203 EXP. DATE: 3/31/2021 LOGAN-CACHE-Set.dwg

1. SCOPE OF WORK

THE INTENT OF THE PROJECT IS TO PROVIDE NEW FUEL STORAGE TANK & DISPENSING EQUIPMENT FOR DIRECT TO AIRCRAFT FUELING (AVGAS).

 INSTALL NEW AVGAS TANK, DISPENSER & HOSE REEL AS INDICATED HEREIN.

2. TANK:

INSTALL THE FOLLOWING TANK:

NEW 2,000 GALLON AST W/ DISPENSER, HOSE REEL & ASSOCIATED EQUIPMENT AD DEFINED

3. DISPENSERS (AVGAS):

DISPENSER PROPOSED HEREIN FOR THE DIRECT TO AIRCRAFT DELIVERY OF AVGAS SHALL BE INSTALLED W/ A SHEAR VALVE @ BASE PER CODE REQUIREMENTS.

DISPENSER WILL BE CONNECTED TO NEW 75' HOSE REEL W/DRY BREAK DISCONNECT & 1" OVER WING

DISPENSER SHALL BE INSTALLED W/ FILTER VESSEL BETWEEN DISPENSER & HOSE REEL.

4. AVIATION FUEL RECOVERY UNITS::

1 FUEL RECOVERY UNIT SHALL BE INSTALLED FOR USE WITH AVGAS AST AT FUEL FARM. (SUMP SAVER)

5. OVERFILL ALARMS & MECHANICAL SHUT DOWN:

TANKS SHALL BE INSTALLED WITH AN OVERFILL ALARM PREVENTION SYSTEM IN PLACE WHICH PROVIDES FOR AN AUDIBLE ALARMS WHEN INDIVIDUAL TANKS REACH 90% CAPACITY. FILL PIPING AT ALL TANKS PROPOSED HEREIN IN SHALL BE AFFIXED WITH A HIGH LEVEL SHUT OFF VALVE WHICH MECHANICALLY STOPS FLOW TO TANK WHEN 95% CAPACTLY IS

6. ELECTRICAL:

NEW MAIN POWER PANEL TO BE PROVIDED AS INDICATED. FUEL FARM PANEL TO BE LOCATED OUTSIDE CLASS I AREA. ALL SWITCH GEAR & COMPONENTS MUST MEET NEC AND LOCAL CODE REQUIREMENTS.

ASME (AMERICAN SOCIETY OF MECHANICAL ENGINEERS)

ASME 31.3 PROCESS PIPING CODE

NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)

NFPA 30 FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE (2008) NFPA 70 NEC NATIONAL ELECTRIC CODE NFPA 407 STANDARD FOR AIRCRAFT FUEL SERVICING NFPA 410 STANDARD ON AIRCRAFT MAINTENANCE

ENVIRONMENTAL PROTECTION AGENCY (EPA)

FACILITY RESPONSE PLAN FOR SPILL PREVENTION COUNTER-MEASURE AND CONTROL PLAN (SPCC)

40 CFR PART 112 OIL POLLUTION PREVENTION

FAA (FEDERAL AVIATION AUTHORITY)

FAA AC/150/5230-4B AIRCRAFT FUEL STORAGE, HANDLING AND DISPENSING ON AIRPORTS (DRAFT)

FAA 7460-1 FORM NOTICE OF PROPOSED CONSTRUCTION

AMERICAN PETROLEUM INSTITUTE (API)

API-1541-IDENTIFICATION MARKINGS FOR DEDICATED AVIATION FUEL MANUFACTURING AND DISTRIBUTION FACILITIES, AIRPORT STORAGE AND MOBILE FUELING EQUIPMENT. API-1581-SPECIFICATION AND QUALIFICATION PROCEDURES FOR AVIATION JET FUEL FILTER/SEPARATOR (LISTED IN ATA 103)

FUELING SYSTEM IS TO MEET THE FOLLOWING RECOGNIZED STANDARDS AND GUIDELINES:

- UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
- INTERNATIONAL BUILDING CODE (2018)
- NATIONAL ELECTRICAL CODE, ARTICLE 515, BULK STORAGE PLANTS - NFPA 407, AIRCRAFT FUEL SERVICING
- NFPA 30, FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE - AMERICAN PETROLEUM INSTITUTE, #1542~AIRPORT EQUIPMENT MARKING
- FAA ADVISORY CIRCULAR 150/5300-13, AIRPORT DESIGN

2. NEW AST TANKS SHALL BE UL-2085 LISTED, AND MEET THE REQUIREMENTS OF ALL OTHER AUTHORITIES HAVING JURISDICTION.

AVGAS PUMP / FILTER SPECIFICATIONS AND TEST REQUIREMENTS:

1. AVGAS PUMP/FILTER ASSEMBLIES SHALL MEET NATA, ATA, AND API STANDARDS AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACCEPTED INDUSTRY PRACTICES. ALL PIPING SHALL BE TESTED AT 75 PSI., AND ALL WIRING SHALL BE IN ACCORDANCE WITH NFPA/NEC REQUIREMENTS.

TESTING:

- 1. AIR PRESSURE TEST PIPING @ 75 PSI FOR 60 MINUTES.
- 2. CONFIRM PROPER OPERATION OF TANK INVENTORY CONTROL SYSTEM AND TANK OVERFILL ALARMS AND JET FUEL TANK FILL VALVE PROXIMITY
- 3. FUEL HANDLING MODULES TO BE COMMISSIONED BY EQUIPMENT MANUFACTURER, WITNESSED BY THE FUEL SUPPLIER AND THE ENGINEER.
- 4. ALL TANKS SHOP TESTED WITH 3-5 PSI AIR PRESSURE & DOUBLE WALL TESTING PROCEDURES.
- 5. ADDITIONALLY, TANK TIGHTNESS TESTING PERFORMED PER VACUUM TEST (2.6 HG) ON INTERSTIS AT MANUFACTURER'S FACILITY WHEN SHIPPING, RE-VERIFIED AT ARRIVAL TO FACILITATE SITE AND HELD THROUGH THE COMPLETION OF INSTALLATION.

PIPING:

- 1. AVGAS HORIZONTAL AST'S SHALL BE FITTED WITH FUEL RESISTANT EPOXY INTERIOR COATING. TANK MFG SHALL PROVIDE FOR SUMP DRAIN TO REMOVE WATER FROM TANKS.
- 2. LOADING AND UNLOADING (DISPENSING) CONNECTIONS ARE TO BE PAINTED AS PER API 1542:
- AVGAS RED BACKGROUND, WHITE LETTERS "AVGAS 100LL", BLUE BANDING ON SILVER. 3. ALL METAL IN CONTACT WITH AVIATION FUEL TO BE FREE OF ZINC, CADMIUM, COPPER, AND THEIR ALLOYS.
- 4. STEEL PIPING TO BE SCHEDULE 10 TYPE 304 SS, WITH WELDED FLANGED JOINTS.
- 5. FOR THREADED PIPE COUPLINGS, TEFLON TAPE OR TEFLON PIPE DOPE IS TO BE USED.
- 6. FOR FLANGED FITTINGS, SYNTHETIC GASKET MATERIAL, IS TO BE COMPATIBLE WITH THE FUEL PRODUCT BEING HANDLED. (BUNA-N, TEFLON, OR VITON—A OR GARLOCK 3000)
- 7. STATIC ELECTRICITY GROUNDING CABLES MUST BE PROVIDED AT THE TRUCK UNLOADING & LOADING STATIONS.
- 8. PIPING IS DIAGRAMMATIC ONLY, MANUFACTURER IS RESPONSIBLE FOR ACTUAL LAYOUT AND PROPER SUPPORT OF PIPING SYSTEM.

CODE REFERENCES

- INTERNATIONAL BUILDING CODE (2018)
- INTERNATIONAL FUEL GAS CODE (2018) - ICC INTERNATIONAL MECHANICAL CODE (2018)
- INTERNATIONAL FIRE CODE (2018)
- NATIONAL ELECTRICAL CODE, ARTICLE 515, BULK STORAGE PLANTS
- NFPA ~ NATIONAL ELECTRICAL CODE (2018)
- NFPA-1 ~ LIFE SAFETY CODE
- NFPA 704 ~ STANDARD FOR IDENTIFICATION OF HAZARDOUS MATERIALS - NFPA 407 ~ AIRCRAFT FUEL SERVICING
- NFPA 30 ~ FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE
- NFPA 70 ~ NATIONAL ELECTRIC CODE (2011)
- AMERICAN PETROLEUM INSTITUTE, #1529 (AVIATION FUELING HOSE) - AMERICAN PETROLEUM INSTITUTE, #1542 (AIRPORT EQUIPMENT MARKING)
- LOCAL UTILITY AUTHORITY REGULATIONS - (IECC) INTERNATIONAL ENERGY CONSERVATION CODE (2018)

RECOGNIZED STANDARDS & GUIDELINES

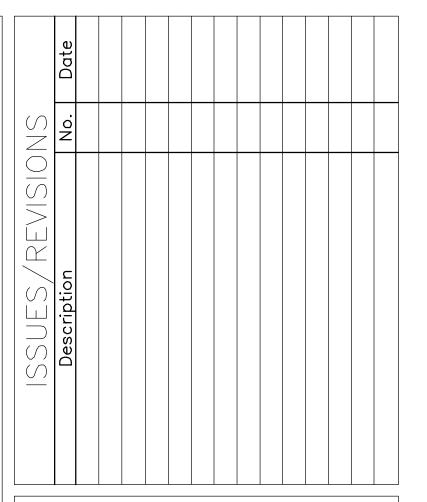
- UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
- INTERNATIONAL BUILDING CODE (2018)
- NATIONAL ELECTRICAL CODE, ARTICLE 515, BULK STORAGE PLANTS
- NFPA 407, AIRCRAFT FUEL SERVICING - NFPA 30, FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE
- AMERICAN PETROLEUM INSTITUTE, #1542~AIRPORT EQUIPMENT MARKING - FAA ADVISORY CIRCULAR 150/5300-13, AIRPORT DESIGN

GENERAL:

- 1. ALL WORK TO BE IN STRICT ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL CODES AND IN STRICT ACCORDANCE WITH APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION AND NATIONAL ELECTRICAL CODE SPECIFICATIONS AND ASME 31.3 (PROCESS PIPING CODE)
- 2. ALL MATERIALS SHALL MEET OR EXCEED APPLICABLE MANUFACTURERS WRITTEN SPECIFICATIONS.
- 3. ALL EQUIPMENT SHALL BE INSTALLED / PIPED / WIRED IN STRICT COMPLIANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER.
- 4. A CLEARLY IDENTIFIED AND EASILY ACCESSIBLE EMERGENCY SWITCH SHALL BE PROVIDED AT A LOCATION AT LEAST 20' BUT NOT MORE THAN 100' FROM THE DISPENSER(S) TO ALLOW FOR POWER SHUTOFF IN THE EVENT OF AN EMERGENCY.
- 5. NO SMOKING / STOP ENGINE SIGN TO BE POSTED IN DISPENSING AREAS.
- 6. THE PRODUCT NAME AND HAZARDOUS MATERIAL SIGN SHALL BE STENCILLED ON TANK SO AS TO BE VISIBLE FROM GRADE AFTER INSTALLATION.
- 7. TANK FILL TO BE COLOR CODED USING AMERICAN PETROLEUM INSTITUTE SYSTEM OF IDENTIFICATION AS IMPLEMENTED BY LOCAL CODE.
- 8. INSTALLER SHALL FURNISH WRITTEN APPROVAL OF COMPLETED INSTALLATION FROM ALL GOVERNING AGENCIES.
- 9. ALL PIPING TO BE ADEQUATELY SUPPORTED TO REDUCE THE POSSIBILITY OF DAMAGE DUE
- TO EXCESS STRESS, DEFLECTION, ETC.
- 10. TANK / DIKE ASSEMBLY TO BE LISTED AND LABELED BY UNDERWRITERS LABORATORIES, 11. ALL NEW TANKS TO BE FACTORY PRESSURE TESTED FOR LEAKAGE AT 3-5 PSIG PRIOR TO
- 12. ALL UNUSED TANK TAPPING ARE TO BE PLUGGED.

BEING FILLED WITH PRODUCT OR PLACED INTO OPERATION.

- 13. PRIMARY PIPING TO BE AIR TESTED AT 75 PSIG FOR 60 MIN. ALL JOINTS TO BE CHECKED FOR LEAKAGE USING A SOAP SOLUTION. THE TANK MUST BE VENTED TO ATMOSPHERE PRIOR TO PRESSURIZING PIPING.
- 14. CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES AND EQUIPMENT ADJACENT TO THE WORK AND PROJECT, SUPPORT AND RELOCATE, IF NECESSARY, ALL EXPOSED LINES AND MAKE COMPLETE RESTORATION OF DAMAGED PIPING, CONDUIT, WIRING, CABLES AND APPURTENANCES AT NO COST TO THE OWNER OF SAID ÚTILITIES, ÁUTHORITY, OR THE AIRPORT AUTHORITY.
- 15. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATE THE GENERAL ARRANGEMENT OF THE VARIOUS SYSTEMS AND THE APPROXIMATE RELATIVE LOCATIONS OF THE EQUIPMENT / DEVICES / ITEMS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THAT THERE IS ADEQUATE SPACE AT THE LOCATIONS INDICATED FOR ALL THE EQUIPMENT / DEVICES/ ITEMS PRIOR TO INSTALLATION OF SAME IF PLAN LAYOUT SPACING OR INTENT IS CHANGED, THESE CHANGES MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR APPROVAL.
- 16. ALL EQUIPMENT AND COMPONENTS SHALL BE PROPERLY GROUNDED AS INDICATED ON THE DRAWINGS AND/OR AS REQUIRED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 17. ALL ELECTRICAL CONDUITS ARE SHOWN DIAGRAMMATICALLY. EXACT RUNS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD, EXCEPT WHERE SPECIFICALLY DIMENSIONED ON THE PLAN.
- 18. ALL EXPOSED CONDUIT SHALL BE PROPERLY SUPPORTED BY APPROVED HANGERS OF ANGLE OR CHANNEL CONSTRUCTION.
- 19. EXACT CONDUIT STUB UP LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR BASED ON THE MANUFACTURER'S DRAWINGS OF THE RESPECTIVE EQUIPMENT. CONDUITS SHALL BE INSTALLED TO MATCH THE EQUIPMENT FURNISHED.
- 20. ALL 3 PHASE MOTOR STARTERS SHALL BE NEMA SIZE 1 EXCEPT AS NOTED.
- 21. FOR AREAS CLASSIFIED AS CLASS 1, DIV 1, ALL ELECTRICAL MATERIALS SHALL BE OF EXPLOSION PROOF CONSTRUCTION. ALL CONDUIT ENTERING THIS AREA SHALL INCLUDE SEAL OFF FITTING. ALL WORK TO BE CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
- 22. ALL OUTDOOR ELECTRICAL ENCLOSURES INCLUDING WIREWAY SHALL BE TYPE NEMA 4X.
- 23. ALL EXPOSED CARBON STEEL TANK SURFACES SHALL BE COATED AT A MINIMUM WITH A PRIMER COAT, A BOND COAT AND ONE OR MORE FINAL COATS OF PAINT. APPLICATION METHODS SHALL MEET THE REQUIREMENTS OF THE STEEL STRUCTURES PAINTING COUNCIL AND THE NATIONAL ASSOCIATION OF CORROSION ENGINEERS. CONTRACTOR SHALL PROVIDE PAINT / COATING SPECIFICATIONS FOR TANKS, PIPING & SKIDS FOR ENGINEER REVIEW.
- 24. PRIOR TO ANY TRENCHING EXCAVATION, SOIL BORINGS AND/OR UNDERGROUND EXPLORATION, THE CONTRACTOR SHALL NOTIFY ALL UTILITIÉS.
- 25. PRIOR TO CONSTRUCTION, THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR THE LEGAL TONING & MARKING OUT OF THE SITE TO ENSURE THERE ARE NO UNKNOWN UTILITIES THAT MAY EXIST IN THE WORK AREA.
- 26. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS & SPECIFICATIONS FOR ALL NEW EQUIPMENT TO ENGINEER OF RECORD FOR REVIEW & APPROVAL PRIOR TO INSTALL.



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LEADING EDGE AVIATION 2500 NORTH AIRPORT DRIVE

LOGAN, UTAH 81321 American

3977 AVIATION LOOP, SANFORD, FLORIDA 32773

PHONE: (631) 586-2000

LEADING EDGE AVIATION LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

SHEET DESCRIPTION:

GENERAL NOTES

SEAL & SIGNATURE

DATE: **DECEMBER 2019** PROJECT NO.: AEAC-LOGAN DRAWING BY: MSK CHK. BY: AGN

T-110

CADD FILE NO. LOGAN-CACHE-Set.dwg



Codes [edit]

The four divisions are typically color-coded with red indicating flammability, blue indicating level of health hazard, yellow for chemical reactivity, and white containing codes for special hazards. Each of health, flammability and reactivity is rated on a scale from 0 (no hazard) to 4 (severe risk). See the latest version of NFPA 704 sections 5, 6, 7 and 8 for the specifications of each classification. [2]



	Health (blue)
0	Poses no health hazard, no precautions necessary and would offer no hazard beyond that of ordinary combustible materials (e.g. wood)
1	Exposure would cause irritation with only minor residual injury (e.g. acetone)
2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether)
3	Short exposure could cause serious temporary or moderate residual injury (e.g. chlorine)
4	Very short exposure could cause death or major residual injury (e.g. hydrogen cyanide, phosphine, carbon monoxide, sarin, hydrofluoric acid)

Instability/Reactivity (yellow)

O Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium)

1 Normally stable, but can become unstable at elevated temperatures and pressures (e.g. propene)

2 Undergoes violent chemical change at elevated temperatures and pressures, reacts violently with water, or may form explosive mixtures with water (e.g. white phosphorus, potassium, sodium)

3 Capable of detonation or explosive decomposition but requires a strong initiating source, must be heated under confinement before initiation, reacts explosively with water, or will detonate if severely shocked (e.g. ammonium nitrate, chlorine trifluoride)

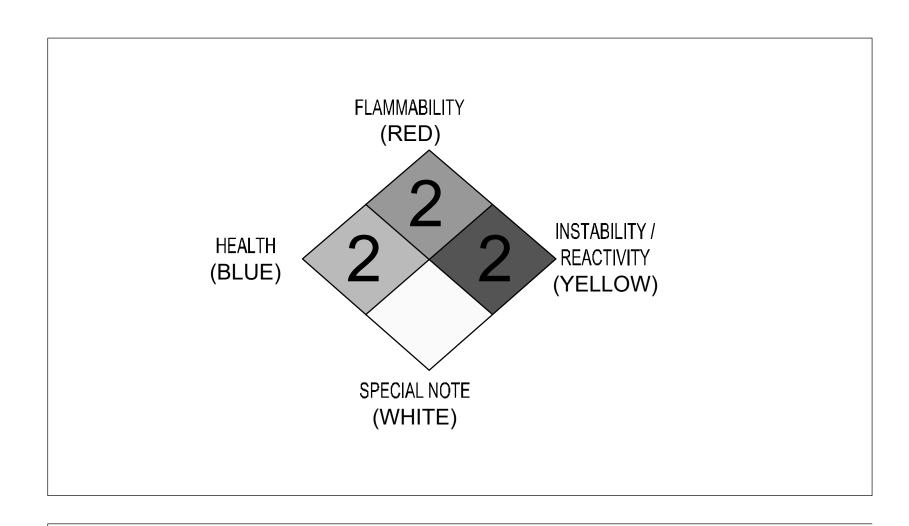
4 Readily capable of detonation or explosive decomposition at normal temperatures and pressures (e.g. nitroglycerin, chlorine azide, chlorine dioxide)

	Special notice (white)			
The white "special notice" area can con	white "special notice" area can contain several symbols. The following symbols are defined by the NFPA 704 standard.			
ox	Oxidizer, allows chemicals to burn without an air supply (e.g. potassium perchlorate, ammonium nitrate, hydrogen peroxide).			
W	Reacts with water in an unusual or dangerous manner (e.g. cesium, sodium, sulfuric acid).			
SA	Simple asphyxiant gas. Specifically limited to the following gases: nitrogen, helium, neon, argon, krypton and xenon. ^[2]			

MATERIAL CLASSIFICATION

ABBREVIATIONS

			ADDREVI	ATIONS			
L	ANGLE	D.S.P.	DRY STANDPIPE	HORIZ.	HORIZONTAL	RESIL.	RESILIENT
@	AT	DWG.	DRAWINGS	HR.	HOUR	RM.	ROOM
<u>գ</u>	CENTERLINE	E	EXISTING	HGT.	HEIGHT	R.O.	ROUGH OPENING
Ø	DIAMETER	EA.	EACH	I.D.	INSIDE DIAMETER (DIM.)		
	PERPENDICULAR	E.J.	EXPANSION JOINT	INSUL.	INSULATION	RWD.	REDWOOD
_	CHANNEL	EL.	ELEVATION	INT.	INTERIOR	R.W.L.	RAIN WATER LEADER
<u></u>		ELEC.	ELECTRICAL	JAN.	JANITOR	S.	SOUTH
#	POUND or NUMBER					S.C.	SOLID CORE
(E)	EXISTING	ELEV.	ELEVATOR	JT.	JOINT	S.C.D.	SEAT COVER DISPENSER
ACOUS.	ACOUSTICAL	EMER.	EMERGENCY	KIT.	KITCHEN	SCHED.	SCHEDULE
	AREA DRAIN	ENCL.	ENCLOSURE	LAB.	LABORATORY	S.D.	SOAP DISPENSER
A.D.		E.P.	ELECTRICAL PANEL	LAM.	LAMINATE	SECT.	SECTION
ADJ.	ADJUSTABLE	EQ.	EQUAL	LAV.	LAVATORY		
A.F.F.	ABOVE FINISH FLOOR	EQPT.	EQUIPMENT	LKR.	LOCKER	SH.	SHELF
AGGR.	AGGREGATE	ETC.	ETCETERA	LT.	LIGHT	SHR.	SHOWER
AL.	ALUMINUM	E.W.C.	ELECTRIC H200 COOLER			SHT.	SHEET
APPROX.	APPROXIMATE	(E)	EXISTING	MAX.	MAXIMUM	SIM.	SIMILAR
ARCH.	ARCHITECTURAL			M.C.	MEDICINE CABINET	S.N.D.	SANITARY NAPKIN DISPENS
ASB.	ASBESTOS	EXIST.	EXISTING	MECH.	MECHANICAL	S.N.R.	SANITARY NAPKIN RECEPTA
ASBO	AS SELECTED BY OWNER	EXPO.	EXPOSED	MEMB.	MEMBRANE		
ASPH.	AS SELECTED BY OWNER ASPHALT	EXP.	EXPANSION	MTL.	METAL	SNT.	SEALANT
		EXT.	EXTERIOR	MFR.	MANUFACTURER	SPEC.	SPECIFICATION
BD.	BOARD	F.A.	FIRE ALARM	MH.	MANHOLE	SQ.	SQUARE
BITUM.	BITUMINOUS					S.S.	STAINLESS STEEL
BLDG.	BUILDING	F.B.	FLAT BAR	MIN.	MINIMUM	S.SK.	SERVICE SINK
BLK.	BLOCK	F.D.	FLOOR DRAIN	MIR.	MIRROR	STA.	STATION
BLKG.	BLOCKING	FDN.	FOUNDATION	MISC.	MISCELLANEOUS	STD.	STANDARD
BM.	BEAM	F.E.	FIRE EXTINGUISHER	M.O.	MASONRY OPENING		
BOT.	BOTTOM	F.E.C.	FIRE EXTINGUISHER CAB	MTD.	MOUNTED	STL.	STEEL
		F.H.C.	FIRE HOSE CABINET	MUL.	MULLION	STOR.	STORAGE
B.O.	BY OWNER	FIN.	FINISH	MW	MONITORING WELL	STRL.	STRUCTURAL
B.T.B.	BACK TO BACK			N.	NEW	SUSP.	SUSPENDED
CAB.	CABINET	FL.	FLOOR	N.I.C.	NOT IN CONTRACT	SYM.	SYMMETRICAL
C.B.	CATCH BASIN	FLASH.	FLASHING		NUMBER	TRD.	TREAD
CEM.	CEMEMT	FLUOR.	FLUORESCENT			T.B.	TOWEL BAR
CER.	CERAMIC	F.O.C.	FACE of CONCRETE	NOM.	NOMINAL	T.C.	TOP OF CURB
		F.O.F.	FACE of FINISH	N.T.S.	NOT TO SCALE	TEL.	TELEPHONE
C.I.	CAST IRON	F.O.S.	FACE of STUDS	O.A.	OVERALL	TER.	TERRAZZO
CLF	CHAIN LINK FENCE	FPRF.	FIREPROOF	OBS.	OBSCURE	T.&G.	TONGUE AND GROOVE
CLG.	CEILING			O.C.	ON CENTER	THK.	THICK
CLO.	CLOSET	F.S.	FULL SIZE	O.D.	OUTSIDE DIAMETER (DIM.)	T.O.	TRIMED OPENING
CLR.	CLEAR	FT.	FOOT or FEET	OFF.	OFFICE	T.P.	TOP OF PAVEMENT
CNTR.	CONTRACTOR	F.T.	FIRE TREATED			T.P.D.	TOILET PAPER DISPENSER
		FTG.	FOOTING	OPNG.	OPENING	T.V.	TELEVISION
COL.	COLUMN	FURR.	FURRING	OPP.	OPPOSITE	T. W.	TOP OF WALL
CONC.	CONCRETE	F&I	FINISH and INSTALL	PRCST.	PRECAST		
CONSTR.	CONSTRUCTION		FUTURE	PL.	PLATE	TYP.	TYPICAL
CONT.	CONTINUOUS	FUT.		P.LAM.	PLASTIC LAMINATE	U.S.	UNDERSIDE
CORR.	CORRIDOR	F.W.P.	FABRIC WRAPPED PANEL	PLAS.	PLASTER	UNF.	UNFINISHED
CTSK.	COUNTERSUNK	GA.	GAUGE	PLYWD.	PLYWOOD	U.O.N.	UNLESS OTHERWISE NOTED
CTR.	CENTER	GALV.	GALVANIZED		PAIR	UR.	URINAL
		G.B.	GRAB BAR	PR.		V.C.T.	VINYL COMPOSITION TILE
DBL.	DOUBLE	G.C.	GENERAL CONTRACTOR	PT.	POINT	VERT.	VERTICAL VERTICAL
DEPT.	DEPARTMENT	GL.	GLASS/GLAZING	P.T.D.	PAPER TOWEL DISPENSER		
D.F.	DRINKING FOUNTAIN	GND.	GROUND	P.T.D/R	CONBINATION PAPER TOWEL	VEST.	VESTIBULE
DET.	DETAIL				DISPENSER & RECEPTACLE	V.I.F.	VERIFY IN FIELD
DIA.	DIAMETER	GR.	GRADE	Q.T.	QUARRY TILE	W.	WEST
DIM.	DIMENSION	GYP.	GYPSUM		RELOCATE	W/	WITH
DISP.	DISPENSER	GWB	GYPSUM WALL BOARD	R		W.C.	WATER CLOSET
		H.B.	HOME BID	RAD.	RADIUS		
DN.	DOWN	H.C.	HOLLOW CAB	R.D.	ROOF DRAIN	WD.	WOOD
D 0	DOOR OPENING		HARDWOOD	REF.	REFERENCE	W/O	WITHOUT
D.O.		HIIVVII					
D.O. DR.	DOOR	HDWD. HDWF		REFR.	REFRIGERATOR	WP.	WATERPROOF
		HDWD. HDWE. H.M.	HARDWARE HOLLOW METAL	REFR. RGTR.	REFRIGERATOR REGISTER	WP. WSCT.	WATERPROOF WAINSCOT



	HAZARD CLASS	FLAMMABILITY (RED)	INSTABILITY / REACTIVITY (YELLOW)	SPECIAL NOTE (WHITE)	HEALTH (BLUE)	
AVGAS	IA	3	0	-	1	130

LEGEND



PROPOSED STORM WATER LEACHING BASIN

LEACHING BASIN W/ OPEN GRATE CASTING

PB LEACHING BASIN W/ OPEN GRATE CASTING. INSTALLED WITH POLLUTION PREVENTION BAFFLE

EXISTING STORM WATER LEACHING BASIN

ELEVATION NUMBER
DRAWING NUMBER

SECTION REFERENCE NUMBER
DRAWING REFERENCE NUMBER

DETAIL REFERENCE NUMBER
DRAWING REFERENCE NUMBER
DENOTES HANDICAPPED USE

2A: 40 BC FIRE EXTINGUISHER

80 BC: 150 LB WHEELED FIRE EXTINGUISHER

---- 3" dia. Hdpe drain pipe, inside 6" dia. Hdpe containment pipe

DW FUEL PRODUCT PIPING (JET = 3", AVGAS = 2")

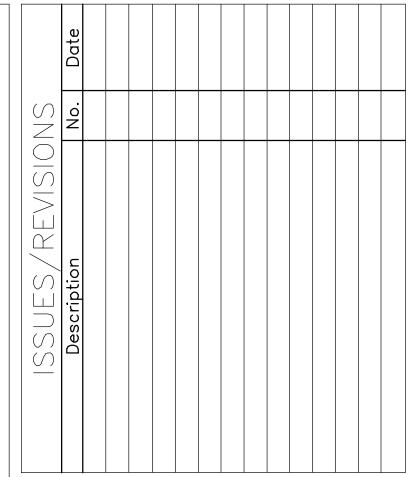
JET FUEL AND AVGAS FUEL PIPING

DRAIN PIPE GRAVITY DRAINED FROM CONTAINMENT DIKE

AVGAS VAPOR RECOVERY

Know what's below.

Call before you dig.



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LE AVIATION

LEADING EDGE AVIATION 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

American
Environmenta
Aviation

3977 AVIATION LOOP, SANFORD, FLORIDA 32773 PHONE: (631) 586-2000

INSTALLATION OF A NEW ABOVE GROND FUEL TANK LEADING EDGE AVIATION LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

SHEET DESCRIPTION:

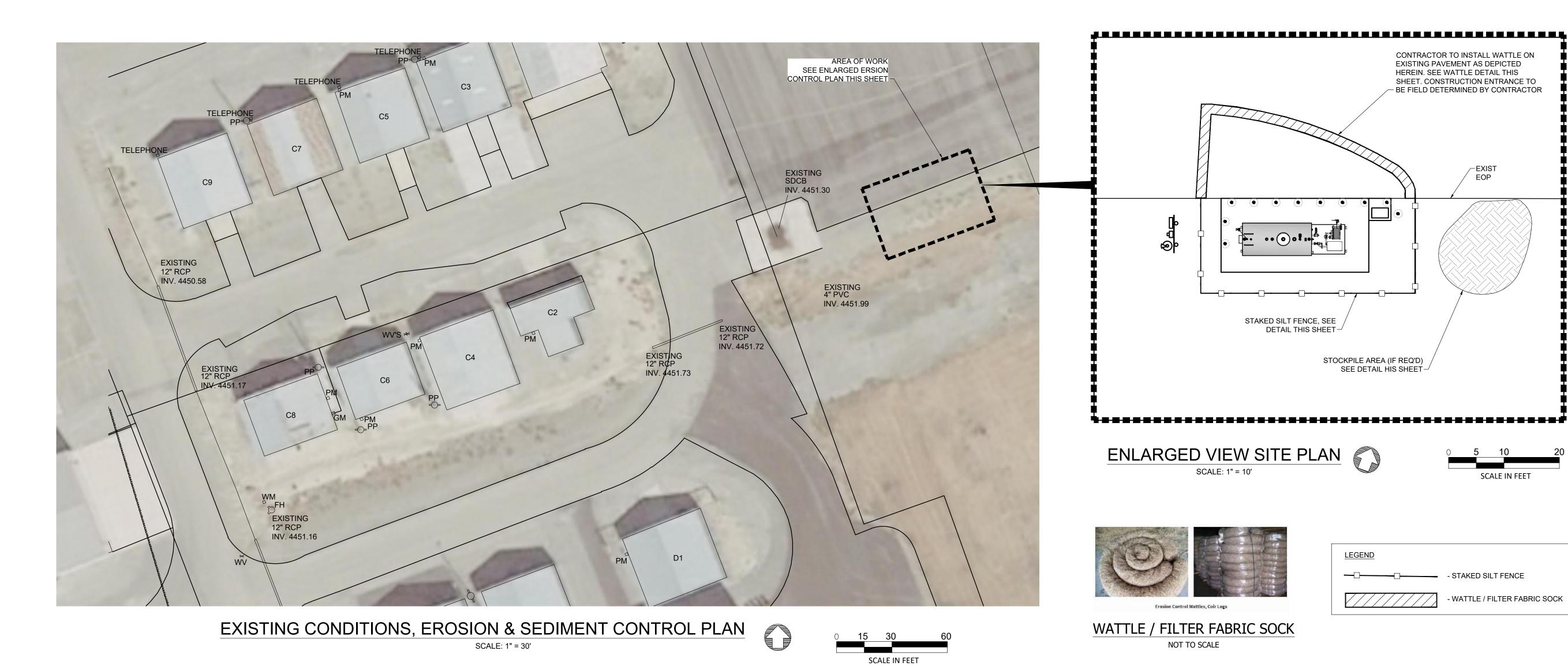
ABBREVIATIONS, LEGEND &

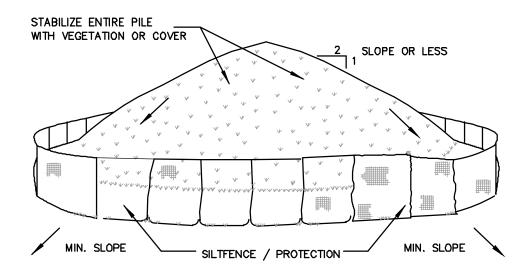
SEAL & SIGNATURE

DATE: DECEMBER 2019
PROJECT NO.: AEAC-LOGAN
DRAWING BY: MSK
CHK. BY: AGN
DWG No:

T-120

BRIAN E. LEWIS, P.E. UTAH P.E. # 5013586-2203 EXP. DATE: 3/31/2021 CADD FILE NO. LOGAN-CACHE-Set.dwg





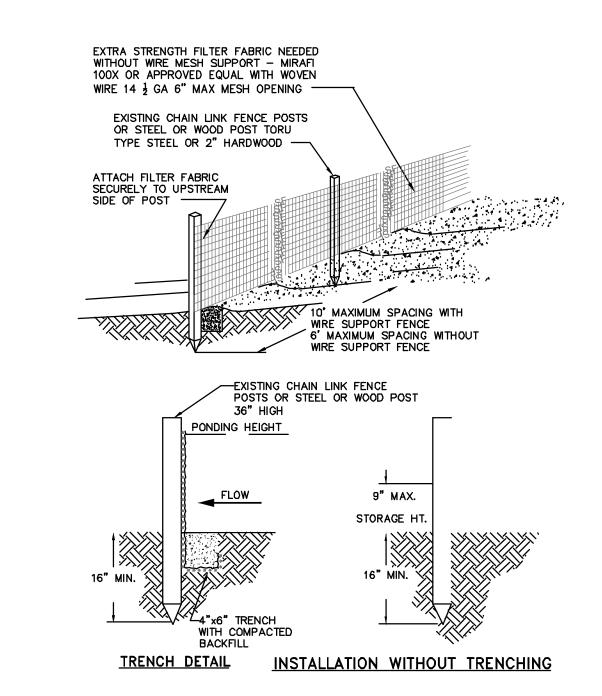
INSTALLATION NOTES

- 1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE. 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
- 3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED
- WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION
- 4. SEE DETAIL FOR INSTALLATION OF SILTFENCE.
- 5. STOCKPILING ON STANDIFORD AVENUE SIDE OF SITE ONLY.

SOIL MANAGEMENT

1. STOCKPILES OF CONTAMINATED SOILS MUST BE COVERED WITH TEMPORARY PLASTIC FILM OR SHEETING TO PREVENT STORMWATER FROM COMING INTO CONTACT WITH THEM. SITE CONTROLS MUST BE EMPLOYED THAT PROTECT DRAG-OUT INTO A CITY STREET FROM THE DEVELOPMENT AND, IF A CLEAN-UP ACTION SITE (CONTAMINATED), FROM THE DAY-TO-DAY OPERATIONS.

- 2. STOCKPILE PERIMETERS MUST HAVE A CONTAINMENT BARRIER ON ALL FOUR SIDES OF EVERY STOCKPILE TO PREVENT STORMWATER RUN-ON AND MATERIAL RUNOFF. BARRIERS CAN CONSIST OF CONCRETE CURBING, SILT FENCING, OR OTHER BERMING MATERIAL, DEPENDING ON THE ACTIVITY, SIZE, AND RESOURCES AVAILABLE.
- 3. AREAS UNDER STOCKPILES OF CONTAMINATED SOILS ARE NOT REQUIRED TO BE PAVED. HOWEVER, AN IMPERVIOUS LAYER MUST BE PLACED BENEATH THE STOCKPILE TO PROTECT UNCONTAMINATED AREAS FROM POTENTIAL LEACHATE. EXAMPLES OF IMPERVIOUS LAYERS INCLUDE, BUT ARE NOT LIMITED TO, ASPHALT, CONCRETE, OR A

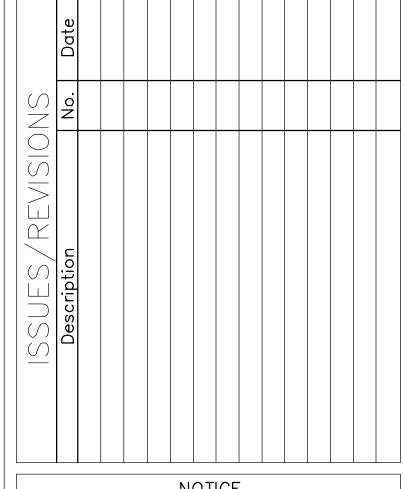


NOTES:

- 1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
- 2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE
- 3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
- 4. WHERE POSSIBLE ATTACH SILT FENCE TO EXISTING CHAIN LINK FENCE.

Know what's **below**. **Call** before you dig.

SCALE IN FEET



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ngineer

PhD

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51 Castello Drive, Naples, Florida Florid

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LEADING EDGE AVIATION LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, ÚTAH 81321

SHEET DESCRIPTION:

EXISTING CONDITIONS, **EROSION & SEDIMENT** CONTROL PLAN

SEAL & SIGNATURE DATE: **DECEMBER 2019** PROJECT NO.: AEAC-LOGAN DRAWING BY: MSK CHK. BY: AGN DWG No:

C-100

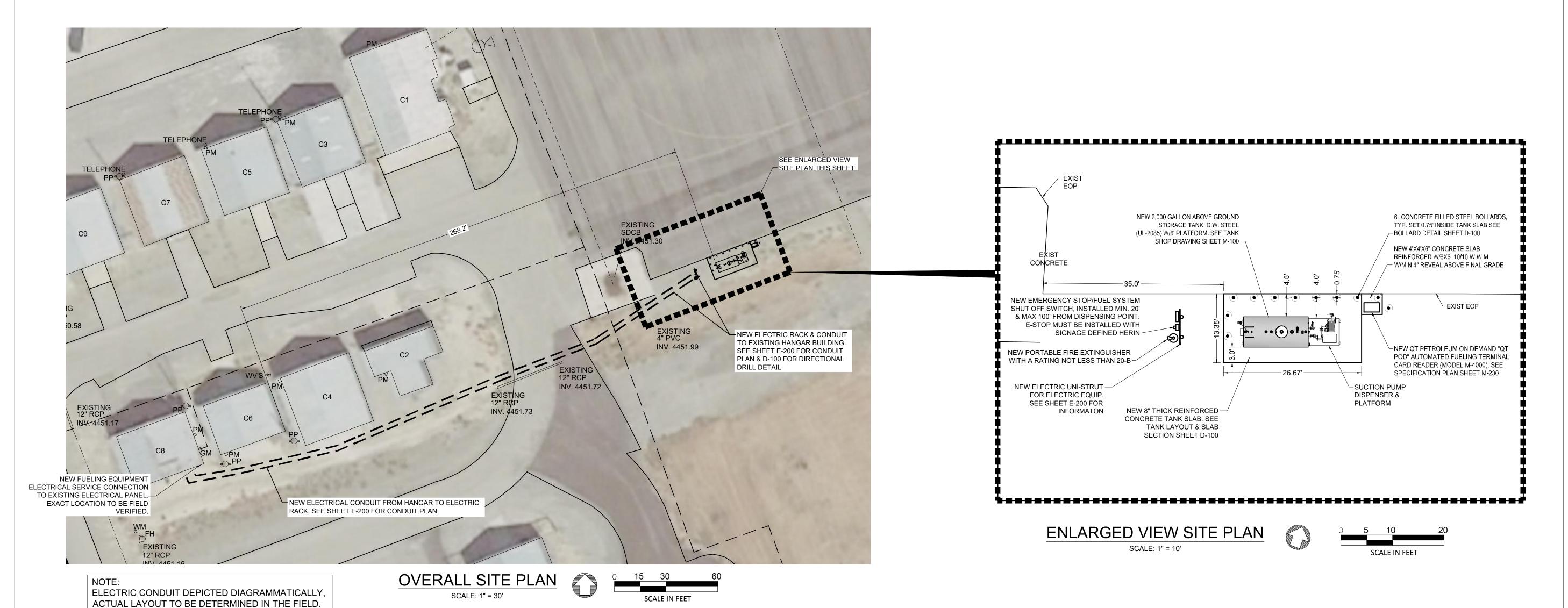
CADD FILE NO. LOGAN-CACHE-Set.dwg

SOIL STOCKPILING DETAIL

NOT TO SCALE

SILT FENCE DETAIL

NOT TO SCALE



CONTRACTOR SHALL INSTALL CONDUIT TO

DRAINAGE OR WATER LINES.

MAINTAIN MINIMUM 10' SEPARATION FROM EXISTING

Description No. Date

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INSTALLATION OF A NEW ABOVE GROND FUEL TANK LEADING EDGE AVIATION LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

SHEET DESCRIPTION:

PhD

ngineer

PROPOSED SITE PLAN

SEAL & SIGNATURE

DATE: DECEMBER 2019
PROJECT NO.: AEAC-LOGAN

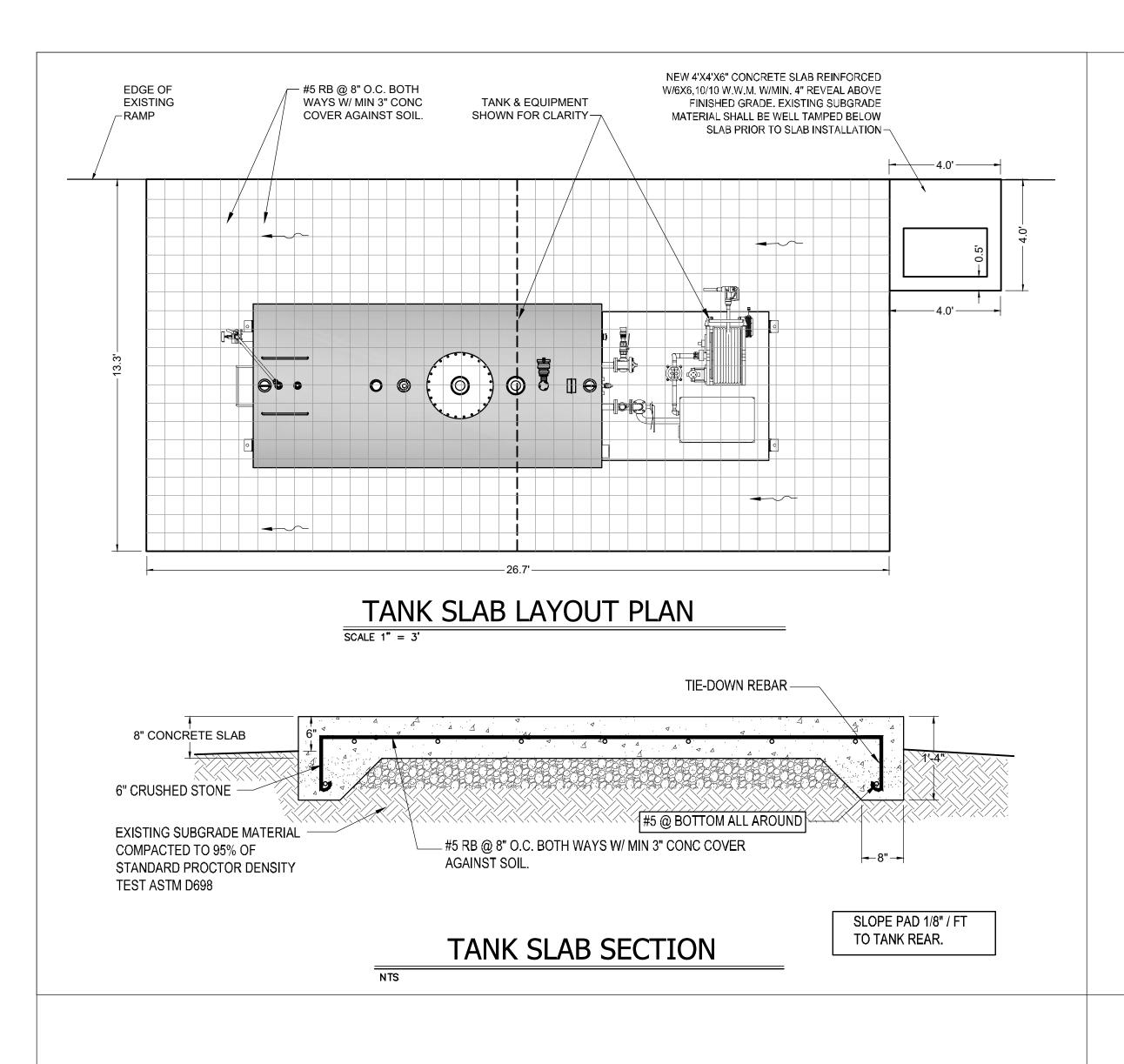
DRAWING BY: MSK

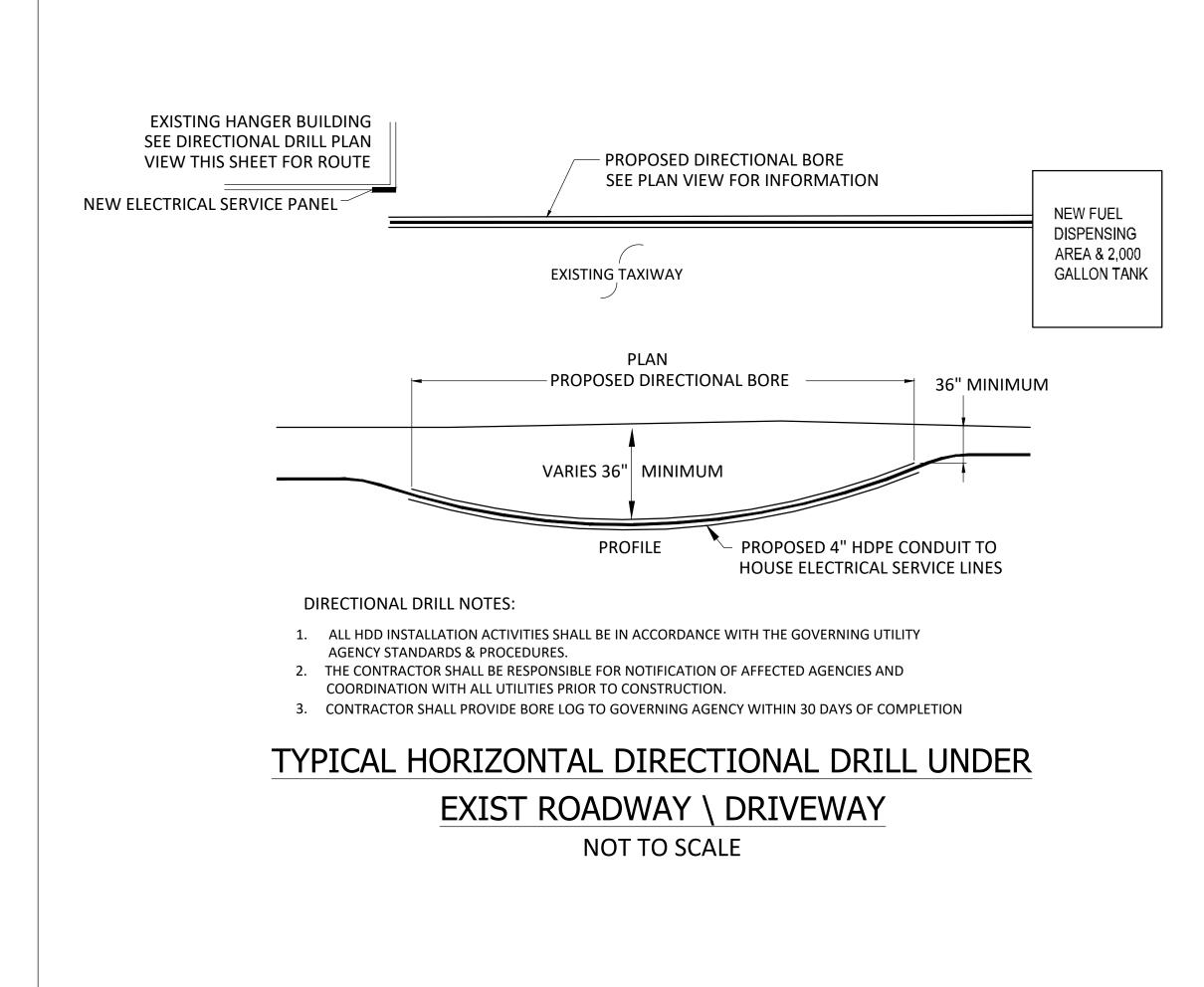
CHK. BY: AGN

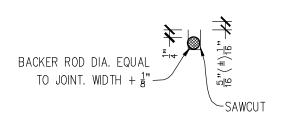
DWG No:

C-200

BRIAN E. LEWIS, P.E. UTAH P.E. # 5013586-2203 EXP. DATE: 3/31/2021 CADD FILE NO. LOGAN-CACHE-Set.dwg







CONTROL JOINT DETAIL NOT TO SCALE

SAWED CONSTRUCTION JOINT SHALL BE CUT TO A DEPTH OF 25% OF TOTAL SLAB THICKNESS. TANK SLAB CJ MINIMUM DEPTH = 1.5" EQUIPMENT SLAB CJ MINIMUM DEPTH = 1.5" FUEL TRANSFER AREA DRIVE MAT CJ MINIMUM DEPTH = 2"

CONCRETE NOTES:

1. ALL JOINTS TO BE FILLED WITH A 3/4" BEAD OF SIKA FLEX OR 1A CONCRETE SURFACE TO BE BROOM FINISHED FOR NON-SLIP SURFACE & EDGES CHAMFERED AS NOTED, 2. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301,315 & 318 LATEST

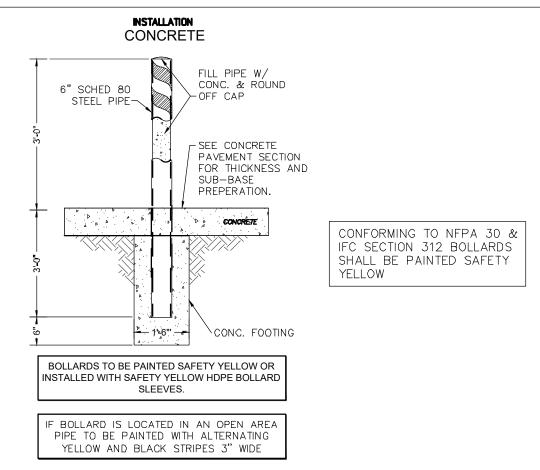
3. FOLLOW ACI RECOMMENDATIONS FOR COLD WEATHER CONDITIONS. ALL CONCRETE SLABS SHALL BE COVERED WITH BURLAP AND KEPT CONTINUOUSLY MOIST FOR A MINIMUM OF 5 DAYS. 4. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS. ALL REBAR TO BE GRADE 60 BILLET STEEL CONFORMING TO ASTM A-615

CONCRETE SLAB & FOOTING NOTES:

- ALL SLABS & FOOTINGS HAVE BEEN DESIGNED ASSUMING AN ALLOWABLE SOIL BEARING PRESSURE OF 1,500 PSF.
- 2. EXISTING SOIL MAY BE USED AS SUBGRADE MATERIAL IF COMPACTED AS REQUIRED BY DESIGN SECTIONS & DETAILS PROVIDED HEREIN.

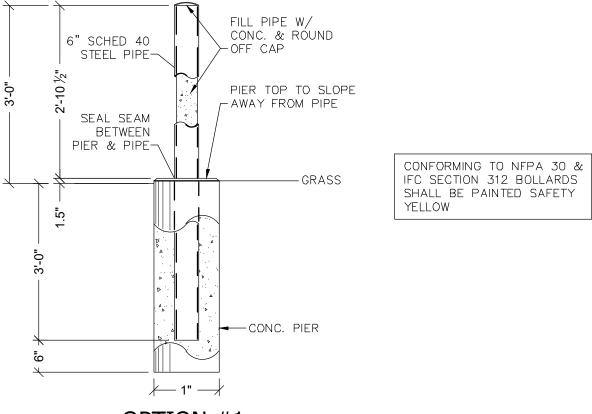
VEHICLE IMPACT PROTECTION GUARD POSTS SHALL BE CONSTRUCTED IN THE

- FOLLOWING MANNER: SHALL BE NOT LESS THAN 4" IN DIAMETER AND CONCRETE FILLED.
- SET NOT LESS THAN 3' DEEP IN A CONCRETE FOOTING OF NOT LESS THAN A 15"
- THE TOP OF THE POSTS NOT LESS THAN 3' ABOVE GROUND.
- LOCATED NOT LESS THAN 3' FROM A PROTECTED OBJECT.
- E. AND SPACED NOT MORE THAN 4' BETWEEN POSTS ON CENTER.



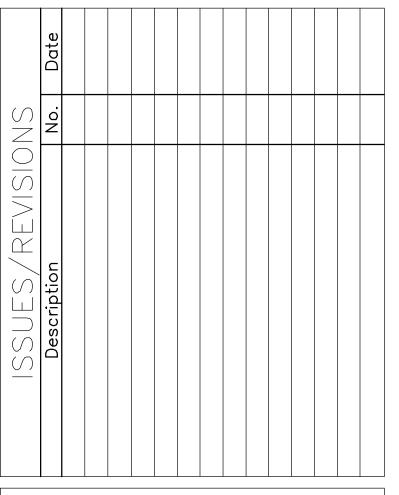
OPTION #2

INSTALLATION **GRASS**



OPTION #1

BOLLARD INSTALLATION OPTIONS



NOTICE IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A PROFESSIONAL ENGINEER, OR LICENSED ARCHITECT, TO

ALTER THIS DRAWING

Central PhD ngineer Consulting Office Suite 34103

5051 Castello Drive Naples, Florida



LEADING EDGE AVIATION LOGAN-CACHE AIRPORT

CONSTRUCTION

SEAL & SIGNATURE

D-100

CADD FILE NO.

LOGAN-CACHE-Set.dwg

LEADING EDGE AVIATION 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

American

3977 AVIATION LOOP, SANFORD, FLORIDA 32773 PHONE: (631) 586-2000

2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

SHEET DESCRIPTION:

DETAILS

PROJECT NO.: AEAC-LOGAN DRAWING BY: MSK CHK. BY: AGN

EMERGENCY PROCEDURE

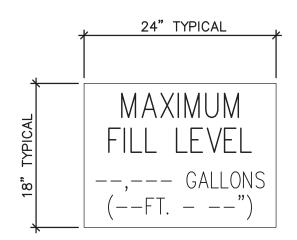
IN THE EVENT OF A FUEL SPILL OR FIRE AT THE FUEL FACILITY, THE FUELERS SHALL IMPLEMENT THE WRITTEN EMERGENCY RESPONSE PLAN (REQUIRED UNDER 40CFR PART 112). AFTER THE IMMEDIATE EMERGENCY IS RESPONDED TO BY ACTIVATING THE EMERGENCY STOPS, THE AGENCIES LISTED IN THE ERP & SPCC PLANS SHALL BE CONTACTED PROMPTLY. THE FUELING FACILITY OWNER / OPERATOR SHALL HOLD ERP & SPCC TRAINING EXERCISES ANNUALLY TO ENSURE THAT THE FUELING SYSTEM OPERATORS ARE FULLY AWARE OF THE PROCEDURES AND CHAIN OF COMMAND FOR OUTSIDE AGENCIES.

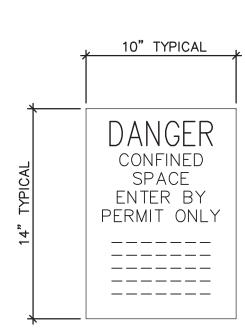
EMERGENCY PROCEDURE SIGN



NFPA DIAMOND DESCRIPTION

NOT TO SCALE



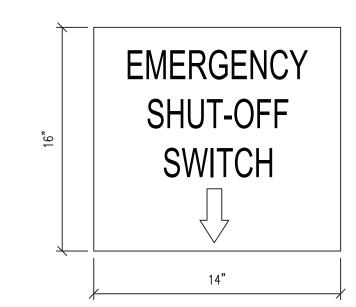


CONFINED SPACE & MAX FILL SIGNAGE DETAILS

NOT TO SCALE

E-STOP SIGNAGE NOTES

- EMERGENCY SHUT OFF TO BE MANUALLY RESETTABLE AND DESIGNED TO ALLOW ONLY AUTHORIZED PERSONNEL TO RESET THE SYSTEM.
- 2. SIGNS FOR EMERGENCY SHUT OFF MUST BE INSTALLED 7 FT ABOVE FINISHED GRADE WITHIN 50 FT, IN ACCORDANCE WITH NFPA 704.
- 3. LETTERS MUST BE MINIMUM 2" TALL.



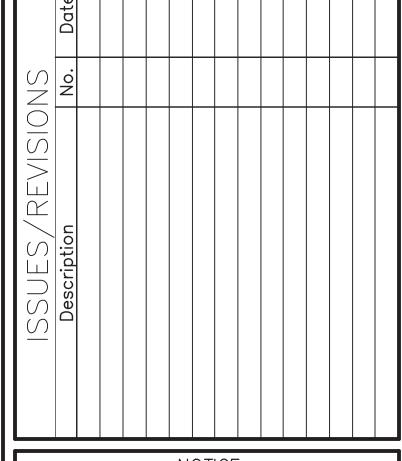
ANSI Z535 and OSHA 1910.145 APPROVED TO BE INSTALLED ABOVE EMERGENCY SHUT-OFF IN CLEAR VIEW OF DISPENSERS

EMERGENCY FUEL SHUT-OFF PUSH BUTTON

NOT TO SCALE

SIGNAGE NOTES

- 1. ALL SIGNAGE TO BE INSTALLED AS PER AIRPORT REQUIREMENTS.
- 2. ALL TANKS TO BE LABELED AND PIPING TO BE COLOR CODED AND LABELED AS REQUIRED. BY FAA & API.



NOTICE

ıtral

Office

Suite 34103

Castello Drive,
 Naples, Florida

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FUEL AREA WARNING SIGNAGE & LABELING SPECS

ENTRANCES TO LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED, DISPENSED, USED

OR IN SYMBOLS ALLOWED BY THIS CODE, SHALL BE DURABLE, AND THE SIZE, COLOR AND LETTERING SHALL BE APPROVED.

HAZARD IDENTIFICATION SIGNS: UNLESS OTHERWISE EXEMPTED BY THE FIRE CODE OFFICIAL, VISIBLE HAZARD IDENTIFICATION SIGNS AS SPECIFIED IN NFPA 704 FOR THE SPECIFIC MATERIAL CONTAINED SHALL BE PLACED ON STATIONARY CONTAINERS AND ABOVE GROUND TANKS AT

FUELING AREAS SHALL BE AFFIXED WITH HAZARD IDENTIFICATION SIGNAGE AS PER IFC 2018.

OR HANDLED IN QUANTITIES REQUIRING A PERMIT AND AT SPECIFIC ENTRANCES AND

LOCATIONS DESIGNATED BY THE FIRE CODE OFFICIAL. SIGNAGE SHALL NOT BE OBSCURED OR REMOVED, SHALL BE ENGLISH AS A PRIMARY LANGUAGE

LABELING & SIGNAGE: THE FIRE CODE OFFICIAL IS AUTHORIZED TO REQUIRE WARNING SIGNS FOR THE PURPOSES OF IDENTIFYING THE HAZARDS OF STORING OR USING FLAMMABLE LIQUIDS. SIGNAGE FOR IDENTIFICATION AND WARNING SUCH AS FOR THE INHERENT HAZARD OF

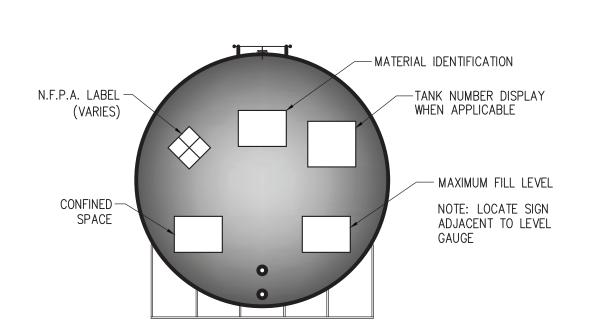
PhD

FLAMMABLE LIQUIDS OR SMOKING SHALL BE PROVIDED.

6" BLACK NUMBERS RED BACKGROUND -TYPICAL BLUE BACKGROUND YELLOW BACKGROUND 1/2" BLACK BORDER —1/2" BLACK DIVIDERS WHITE BACKGROUND

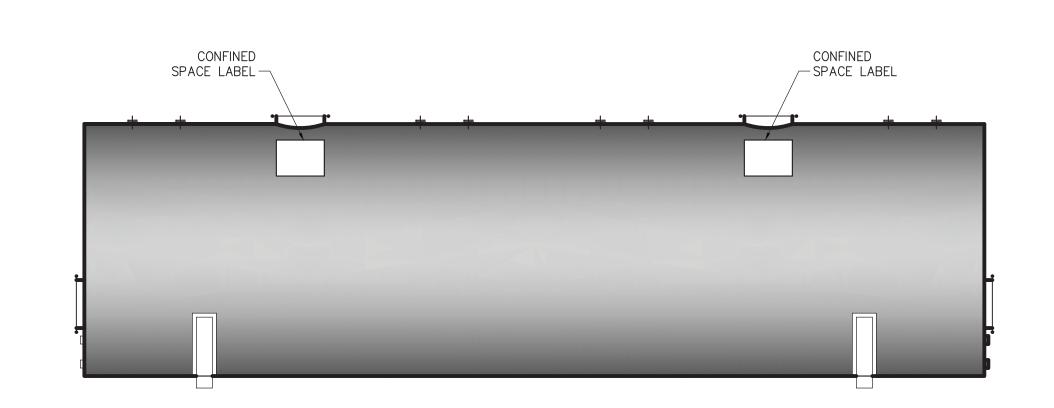
N.F.P.A. LABELS

NOT TO SCALE



HORIZONTAL TANK - END VIEW

NOT TO SCALE



HORIZONTAL TANK - SIDE VIEW

NOT TO SCALE

SIGNAGE DESIGN REQUIREMENTS

SIGNAGE DESIGN REQUIREMENTS

INFORMATIONAL SIGNAGE IS REQUIRED FOR SOME SITE USES AND ACTIVITIES THAT HAVE THE POTENTIAL TO CONTAMINATE STORM WATER. SIGNAGE ADDRESSES GOOD HOUSEKEEPING RULES AND PROVIDES EMERGENCY RESPONSE MEASURES IN CASE OF AN ACCIDENTAL SPILL.

ANY APPLICABLE SPILL RESPONSE SUPPLIES NEED TO BE CLEARLY MARKED AND LOCATED WHERE THE SIGNAGE IS POSTED AND NEAR THE HIGH-RISK ACTIVITY AREA. MORE THAN ONE SPILL RESPONSE KIT MAY BE NECESSARY TO ACCOMMODATE LARGER ACTIVITY AREAS. SPILL RESPONSE SUPPLIES, SUCH AS ABSORBENT MATERIAL AND PROTECTIVE CLOTHING, TO BE AVAILABLE AT ALL POTENTIAL SPILL AREAS. EMPLOYEES SHOULD BE FAMILIAR WITH THE SITE'S OPERATIONS AND MAINTENANCE PLAN AND/OR PROPER SPILL CLEANUP PROCEDURES.

- ALL SIGNAGE MUST CONFORM TO THE REQUIREMENTS DESCRIBED BELOW. SIGNS MUST BE LOCATED WHERE THEY ARE PLAINLY VISIBLE FROM ALL ACTIVITY AREAS. MORE THAN ONE SIGN MAY BE NEEDED TO ACCOMMODATE LARGER ACTIVITY
- SIGNS MUST BE WATER-RESISTANT.
- SIGNS MUST PROVIDE SAFETY PRECAUTIONS.
- SIGNS MUST PROVIDE IMMEDIATE SPILL RESPONSE PROCEDURES--FOR EXAMPLE: "TURN THE VALVE LOCATED AT. . . " AND "USE ABSORBENT MATERIALS."
- SIGNS MUST HAVE EMERGENCY CONTACT(S) AND TELEPHONE NUMBER(S)--FOR EXAMPLE: "CALL 911" AND "FL DEP ORLANDO EMERGENCY RESPONSE NUMBER 407-897-4100".

SIGNAGE MUST BE PROVIDED AT THE STORAGE AREA AND AT SHUT-OFF VALVES IF HAZARDOUS MATERIALS OR OTHER MATERIALS OF CONCERN ARE STORED (AS DETERMINED BY BES). SIGNAGE MUST BE LOCATED SO IT IS PLAINLY VISIBLE FROM ALL STORAGE ACTIVITY AREAS AND LOCATED NEXT TO THE SHUT-OFF VALVE. MORE THAN ONE SIGN MAY BE NEEDED TO ACCOMMODATE LARGE STORAGE AREAS.

SIGNAGE MUST BE PROVIDED AT THE FUEL DISPENSING AREA AND MUST BE PLAINLY VISIBLE FROM ALL FUELING ACTIVITY AREAS. SIGNAGE MUST ALSO BE PROVIDED AT THE SHUT-OFF VALVE AREAS.

LE AVIATION

South

LEADING EDGE AVIATION 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

American

3977 AVIATION LOOP, SANFORD, FLORIDA 32773

2500 NORTH AIRPORT DRIVE

LOGAN, UTAH 81321 SHEET DESCRIPTION:

> SIGNAGE & TANK LABELING DETAILS & **SPECIFICATIONS**

PROJECT NO.: AEAC-LOGAN DRAWING BY: MSK CHK. BY: AGN

D-200

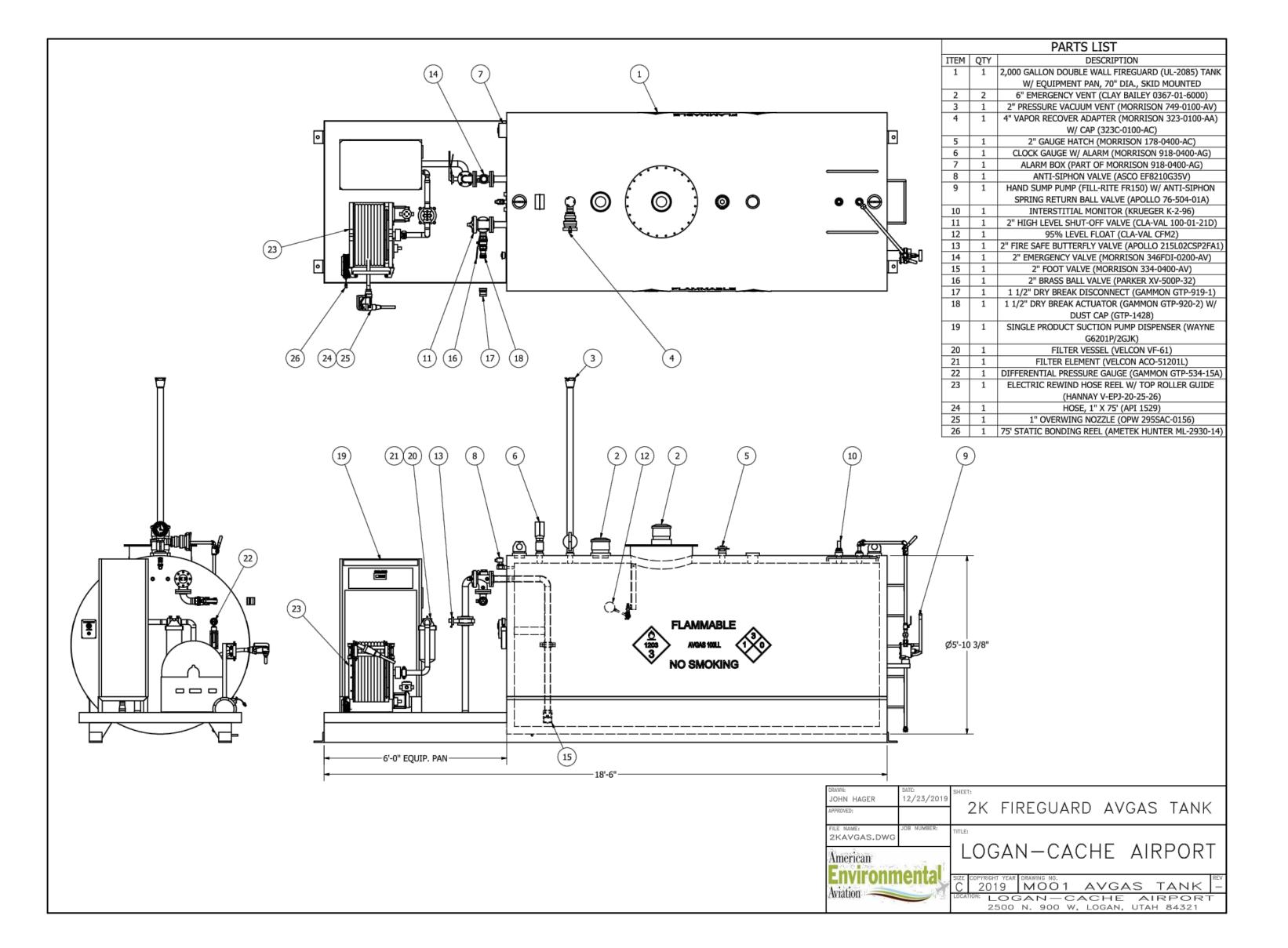
BRIAN E. LEWIS, P.E. UTAH P.E. # 5013586-2203 EXP. DATE: 3/31/2021 CADD FILE NO. LOGAN-CACHE-Set.dwg

NOTE:

- 1. TANK AND EQUIPMENT SKID SHALL BE ANCHORED IN 4 PLACES AS DEFINED BY THE EQUIPMENT FABRICATOR USING 3/4" DIA, GRADE 36 GALVANIZED STEEL ANCHOR BOLTS W/MIN 6" EMBEDMENT INTO CONCRETE TANK SLAB.
- 2. AST ANCHORS SHALL BE CAST IN PLACE OR DRILLED & EPOXIED USING HILTI RE500 3V ADHESIVE ANCHOR SYSTEM.

TANK & PIPING REQUIREMENTS

- DESIGN, CONSTRUCTION AND GENERAL INSTALLATION REQUIREMENTS FOR TANKS. THE DESIGN, FABRICATION AND CONSTRUCTION OF TANKS SHALL COMPLY WITH NFPA 30. EACH TANK SHALL BEAR A PERMANENT NAMEPLATE OR MARKING INDICATING THE STANDARD USED AS THE BASIS OF DESIGN.
- B. PIPING SYSTEMS. PIPING SYSTEMS, AND THEIR COMPONENT PARTS, FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS SHALL BE IN ACCORDANCE WITH SECTIONS 3403.6.1 THROUGH
- TANK VENTS FOR NORMAL VENTING. TANK VENTS FOR NORMAL VENTING SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH SECTIONS 3404.2.7.3.1 THROUGH 3404.2.7.3.6.
- VENT PIPE OUTLETS. VENT PIPE OUTLETS FOR TANKS STORING CLASS I, II OR IIIA LIQUIDS SHALL BE LOCATED SUCH THAT THE VAPORS ARE RELEASED AT A SAFE POINT OUTSIDE OF BUILDINGS AND NOT LESS THAN 12 FEET (3658 MM) ABOVE THE FINISHED GROUND LEVEL. VAPORS SHALL BE DISCHARGED UPWARD OR HORIZONTALLY AWAY FROM ADJACENT WALLS TO ASSIST IN VAPOR DISPERSION. VENT OUTLETS SHALL BE LOCATED SUCH THAT FLAMMABLE VAPORS WILL NOT BE TRAPPED BY EAVES OR OTHER OBSTRUCTIONS AND SHALL BE AT LEAST 5 FEET (1524 MM) FROM BUILDING OPENINGS OR LOT LINES OF PROPERTIES THAT CAN BE BUILT UPON. VENT OUTLETS ON ATMOSPHERIC TANKS STORING CLASS HIB LIQUIDS ARE ALLOWED TO DISCHARGE INSIDE A BUILDING IF THE VENT IS A NORMALLY CLOSED VENT.
- EXCEPTION: VENT PIPE OUTLETS ON TANKS STORING CLASS HIB LIQUID INSIDE BUILDINGS AND CONNECTED TO FUEL-BURNING EQUIPMENT SHALL BE LOCATED SUCH THAT THE VAPORS ARE RELEASED TO A SAFE LOCATION OUTSIDE OF BUILDINGS.
- INSTALLATION OF VENT PIPING. VENT PIPING SHALL BE DESIGNED, SIZED, CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH SECTION 3403.6. VENT PIPES SHALL BE INSTALLED SUCH THAT THEY WILL DRAIN TOWARD THE TANK WITHOUT SAGS OR TRAPS IN WHICH LIQUID CAN COLLECT. VENT PIPES SHALL BE INSTALLED IN SUCH A MANNER SO AS NOT TO BE SUBJECT TO PHYSICAL DAMAGE OR VIBRATION.
- MANIFOLDING. TANK VENT PIPING SHALL NOT BE MANIFOLDED UNLESS REQUIRED FOR SPECIAL PURPOSES SUCH AS VAPOR RECOVERY, VAPOR CONSERVATION OR AIR POLLUTION CONTROL.
- ABOVE-GROUND TANKS. FOR ABOVE-GROUND TANKS, MANIFOLDED VENT PIPES SHALL BE ADEQUATELY SIZED TO PREVENT SYSTEM PRESSURE LIMITS FROM BEING EXCEEDED WHEN MANIFOLDED TANKS ARE SUBJECT TO THE SAME FIRE EXPOSURE.
- UNDERGROUND TANKS. FOR UNDERGROUND TANKS, MANIFOLDED VENT PIPES SHALL BE SIZED TO PREVENT SYSTEM PRESSURE LIMITS FROM BEING EXCEEDED WHEN MANIFOLDED
- TANKS STORING CLASS I LIQUIDS. VENT PIPING FOR TANKS STORING CLASS I LIQUIDS SHALL NOT BE MANIFOLDED WITH VENT PIPING FOR TANKS STORING CLASS II AND III LIQUIDS UNLESS POSITIVE MEANS ARE PROVIDED TO PREVENT THE VAPORS FROM CLASS I LIQUIDS FROM ENTERING TANKS STORING CLASS II AND III LIQUIDS, TO PREVENT CONTAMINATION AND POSSIBLE CHANGE IN CLASSIFICATION OF LESS VOLATILE LIQUID.
- TANK VENTING FOR TANKS AND PRESSURE VESSELS STORING CLASS IB AND IC LIQUIDS. TANKS AND PRESSURE VESSELS STORING CLASS IB OR IC LIQUIDS SHALL BE EQUIPPED WITH VENTING DEVICES WHICH SHALL BE NORMALLY CLOSED EXCEPT WHEN VENTING UNDER PRESSURE OR VACUUM CONDITIONS, OR WITH LISTED FLAME ARRESTERS. THE VENTS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH SECTION 21.4.3 OF NFPA 30 OR API 2000.
- INTERNATIONAL FIRE CODE EMERGENCY VENTING. STATIONARY, ABOVE-GROUND TANKS SHALL BE EQUIPPED WITH ADDITIONAL VENTING THAT WILL RELIEVE EXCESSIVE INTERNAL PRESSURE CAUSED BY EXPOSURE TO FIRES. EMERGENCY VENTS FOR CLASS I, II AND IIIA LIQUIDS SHALL NOT DISCHARGE INSIDE BUILDINGS. THE VENTING SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH SECTION 22.7 OF NFPA 30.
- EXCEPTION: TANKS LARGER THAN 12,000 GALLONS (45 420 L) IN CAPACITY STORING CLASS IIIB LIQUIDS WHICH ARE NOT WITHIN THE DIKED AREA OR THE DRAINAGE PATH OF CLASS FOR II LIQUIDS DO NOT REQUIRE EMERGENCY RELIEF VENTING.
- FILLING, EMPTYING AND VAPOR RECOVERY CONNECTIONS. FILLING, EMPTYING AND VAPOR RECOVERY CONNECTIONS TO TANKS CONTAINING CLASS I, II OR IIIA LIQUIDS SHALL BE LOCATED OUTSIDE OF BUILDINGS IN ACCORDANCE AT A LOCATION FREE FROM SOURCES OF IGNITION AND NOT LESS THAN 5 FEET (1524 MM) AWAY FROM BUILDING OPENINGS OR LOT LINES
- FIRE PROTECTION OF SUPPORTS. SUPPORTS OR PILINGS FOR ABOVE-GROUND TANKS STORING CLASS I, II OR IIIA LIQUIDS ELEVATED MORE THAN 12 INCHES (305 MM) ABOVE GRADE SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 2 HOURS IN ACCORDANCE WITH THE FIRE EXPOSURE CRITERIA SPECIFIED IN ASTM E 1529.
- ALL TANKS HAVE BEEN POSITIONED IN COMPLIANCE WITH INTERNATIONAL FIRE CODE.



2,000 GALLONUL-2085 FIREGUARD AST SHOP DRAWING

Description No. Date

NOTICE IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A PROFESSIONAL ENGINEER, OR LICENSED ARCHITECT, TO ALTER THIS DRAWING

Central ngineer

PhD

D. Eryol Office Southwest Florida

Suite 34103 5051 Castello Drive, Naples, Florida 3 Phone: (352) 684 Fax (800) 660-6 : alex@eryouengir

LE	AVIATION

LEADING EDGE AVIATION 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

American

3977 AVIATION LOOP, SANFORD, FLORIDA 32773 PHONE: (631) 586-2000

INSTALLATION OF A NEW ABOVE GROND FUEL TANK LEADING EDGE AVIATION LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

SHEET DESCRIPTION:

TANK SHOP **DRAWINGS**

SEAL & SIGNATURE

DATE: **DECEMBER 2019** PROJECT NO.: AEAC-LOGAN DRAWING BY: MSK CHK. BY: AGN DWG No:

M-100

BRIAN E. LEWIS, P.E. UTAH P.E. # 5013586-2203 EXP. DATE: 3/31/2021

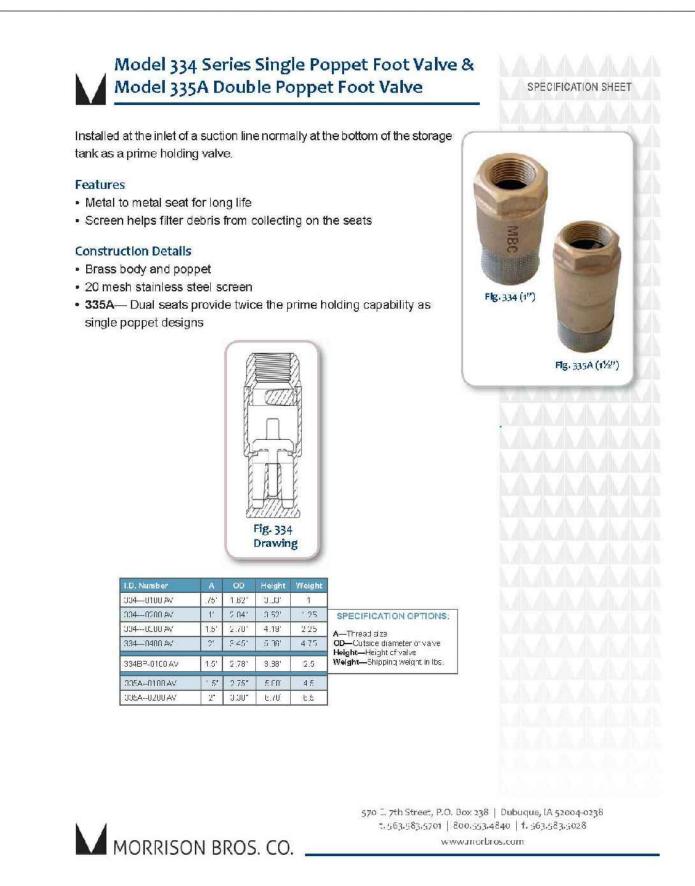
CADD FILE NO.

LOGAN-CACHE-Set LOGAN-CACHE-Set.dwg



2" GAUGE HATCH (MORRISON 178-0400-AC)

NOT TO SCALE



2" FOOT VALVE (MORRISON 334-0400-AV)

NOT TO SCALE

EMERGENCY VENTS





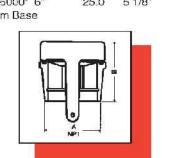


Features Slimline style is ideal for limited space applications. Heavy duty east iron top and base with aluminum bases available. Machined top and base with a Buna N "O" Ring provide a vapor tight scal. 4" or 6"

male NPT thread standard. Screen mini-

mizes chances of theft or vandalism. w/screen 4" - 91,076 SCFH 105,460 SCFH 194,725 SCFH 5" - 171,300 SCFH 6" - 227,191 SCFH 267,284 SCFH ANPT





(CLAY BAILEY 0367-01-6000)

Model 918 Clock Gauge and Alarm Series

The Morrison "clock gauge" displays the liquid level of product

stored in an aboveground storage tank. Measures the liquid level

in tanks up to 12 feet high. The 918 audible alarm sounds when

• Easy to install in a single 2" tank top opening, easy to calibrate

· Gauge face displays level reading in feet and inches. The hour

hand (short hand) displays the number of feet and the minute

hand (long hand) accurately displays the number of inches

· Gauge rotates 360° making it easy for the face to be read from

Visual indicators for high level (red) and low level (green)

Drop tube float compatible with Morrison 419 2" drop tube;

reduces float entanglement when turbulent conditions are

• 918T and 918FT series are compatible for use with Diesel

The 918 alarm box can be paired with a variety of Morrison

calibrated at installation. The alarm box is compliant with UL

Self-powered by long-life replaceable lithium batteries

· Compatible with 918/918 TCP gauging equipment

· Audible alarm sounds 90 dB alarm at four feet away

· Modular contacts make alarm devices easy to install

(MORRISON 918-0400-AG)

· Visual alarm indicators easily identify which sensor is alarming

In compliance with UL 913 and CSA 157 intrinsic safety standards

• Intrinsically safe for Class I, Division 1 and 2, Group D hazardous location

CLOCK GAUGE W/ ALRAM + ALARM BOX

Corrosion-resistant and water-resistant housing for long life

918 clock gauges or level sensors. Alarm set point

913 and CSA 157 intrinsic safety standards.

Audible and visual indicators

User-defined alarm labels

Low battery visual indicator

· Monitor up to four sensor signals

Gallon or liter reading gauge models available

Vapor tight construction and fog free design

• Floats fit through a 2" schedule 40 pipe nipple

the liquid level in the tank reaches the user's specified level.

6" EMERGENCY VENT

NOT TO SCALE

Gauge features

Accurate to ¼ of an inch

Exhaust Fluid (DEF)

Alarm features

NOT TO SCALE

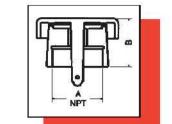
Easily read from 30 feet away



Features |

Female thread, hood design made of heavy duty east iron top and base with aluminum bases available. Hood design acts as a weather deflector and minimizes chances of theft or vandalism. Machined top & base with Buna N "O" Ring provides a vapor tight scal.

w/screen 4" - 77,415 SCFH 89,641 SCFH 227,988 SCFH 6" - 210,527 SCFH 8" - 477,033 SCFH 553,507 SCFH 0368-01-6000 6" 31.0 0368-01-8000 8" 41.0 4 1/8" 0368-03-4000* 4" 19.0 0368-03-6000* 6" 28.0 0368-03-8000* 8" 37.0 4 1/8" *Aluminum Base



P.O. Box 238 • Dubuque, Iowa 520040238 563.583.5701 (tel) +800.553.4840 +563.583.5028 (fax) www.morbros.com

A-Body Connection: 2' N.P.T. (2N), 2' Slip on

B-Pressure Setting: 8 oz./s q. in. (8Z) - Red

Label, 12 oz./sq. in. (12Z) - Yellow Label or 3"

—Vacuum Setting: .5 oz./sq. in. (1/2Z), 5 oz./sq.

-Pressure Seal: Metal/Metal Seat(M) or Metal

HT.—Height: Dimension from base to top of vent

style (2S) or 2" BSP (2B)

Viton O-ring Seat (V)

WT.—Shipping Weight

Body: Anodized Aluminum

Vacuum Poppet: Brass

Springs: Stainless Steel

Body Seal: Buna N

Screws: Zinc-Plated Steel

Screen: 40 Mes h Brass

Water Column (3") - Gold Label

in. (5Z) or 8" Water Column (8")

E-C.A.R.B. Approval: Yes/No (Y/N).

Pressure Poppet: Anodized Aluminum

2" PRESSURE VACUUM VENT (MORRISON 749-0100-AV)

Morrison Bros. Co.

station can cause tank to repture or implode.

are finetioning properly before filling or an loading a task.

Fig. 749 Pressure Vacuum Vents Specification Sheet

The Fig. 749 Vent valve is used on underground & low volume above ground

tanks for motor fueling. The vent allows the tank to "breathe" during filling/

dispensing operations. Poppets seal vapors in the tank when pressure is equal-

ized. Settings are approximate. Fig. 749CRB0500 and 749CRBS500 offer C.A.R.B. approval for Stage I vapor recovery systems. Fig. 749 CR B0600 and

749CRBS600 offer C.A.R.B. approval for Stage I & II vapor recovery

WARNING: Fig. 749 pressure/uzou un ue ats must only be used in conjunction with motor

fielling and/or low capacity flow. Finid handling in lines targer than that used for retail selube

WARNING: DO NOT FILL OR UNLOAD FUEL FROM A STORAGE TANK UNLESS IT IS CERTAIN THAT THE TANK VENTS WILLOPERATE PROPERLY. Morrison task users are designed only for use on shop fabricated atmospheric tanks which have been built and tested In accordance with UL 142, NFPA 3D & 3DA, and API 65D and in accordance with a liappibable local state, and federal taws. In normal operation, dust and debris can accommitate in ment openings and block air passages. Certain atmospherb conditions such as a sudden drop in

temperature, below freezing temperatures, and freezing rain can cause moisture to enter the uent and freeze which can restrict internal movement of yent mechanisms and block all

passages. All storage task uest all passages must be completely free of restriction and all ue itm echanism smist kaue mee mouem ent liouder to his vie proper operation. Any restrb-

the of airflow can cause excessive pressure or u actum to build up in the storage tank, which

death. Monthly inspection, and immediate inspection during fleezing conditions, by someone

familiar with the proper operator of storage task usets, is required to last relies the gloude:

SPECIFICATION OPTIONS:

I.D. NUMBER A B C D E HT. AT. S.C.F.H.

7.49—0.100 AV 2N 8Z 1/2Z III N 4.33 1 6200 **@** 20 o z./h.²
7.49—0.200 AV 2N 8Z 5Z V Y 4.33 1.45 6200 **@** 20 o z./h.²
7.49—0.200 AV 2N 12Z 1/2Z III N 4.33 1 7500 **@** 25 o z./h.²
7.49—0.200 AV 2N 3° 8° V Y 4.33 1.45 3800 **@** 8.2 H₂O

7 49S-0100 AV 2S 8Z 1/2Z II N 4.33 1 6200 2 20 oz./h.²
7 49S-0200 AV 2S 12Z 1/2Z II N 4.33 1 7500 2 25 oz./h.²
7 49S-0200 AV 28 8Z 1/2Z II N 4.33 1 6200 2 20 oz./h.²
7 49S-0200 AV 28 8Z 1/2Z II N 4.33 1 6200 2 20 oz./h.²
7 49S-0200 AV 28 12Z 1/2Z II N 4.33 1 7500 2 25 oz./h.²
7 49C-R8S-600 AV 2S 3° 8° V V 4.33 1 3500 2 8.2° H₂O

Fig. 749CR 80500 & 749CR 85500 are C.A.R.B. approved

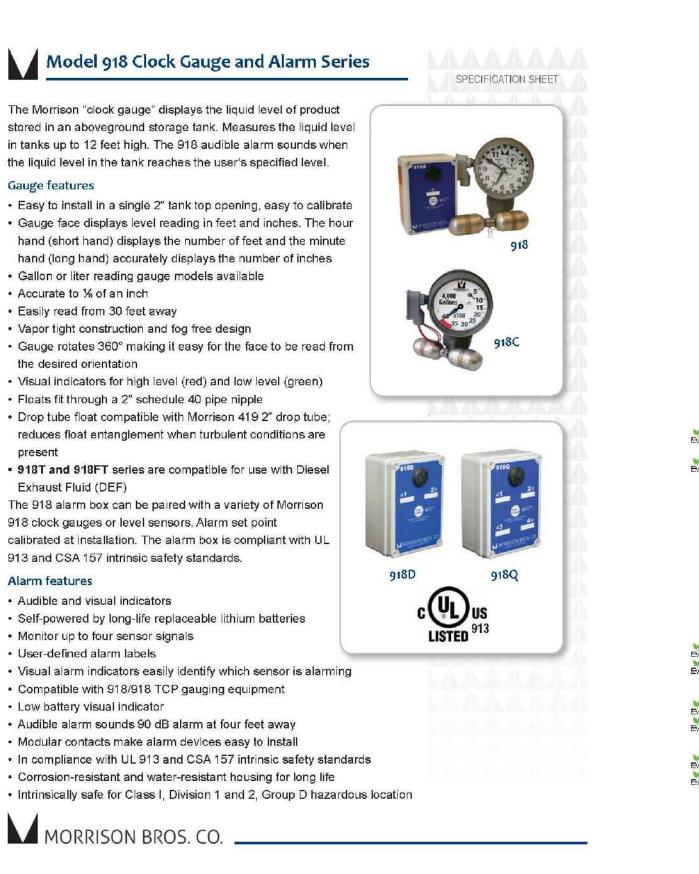
for Stage I Vapor Recovery Systems

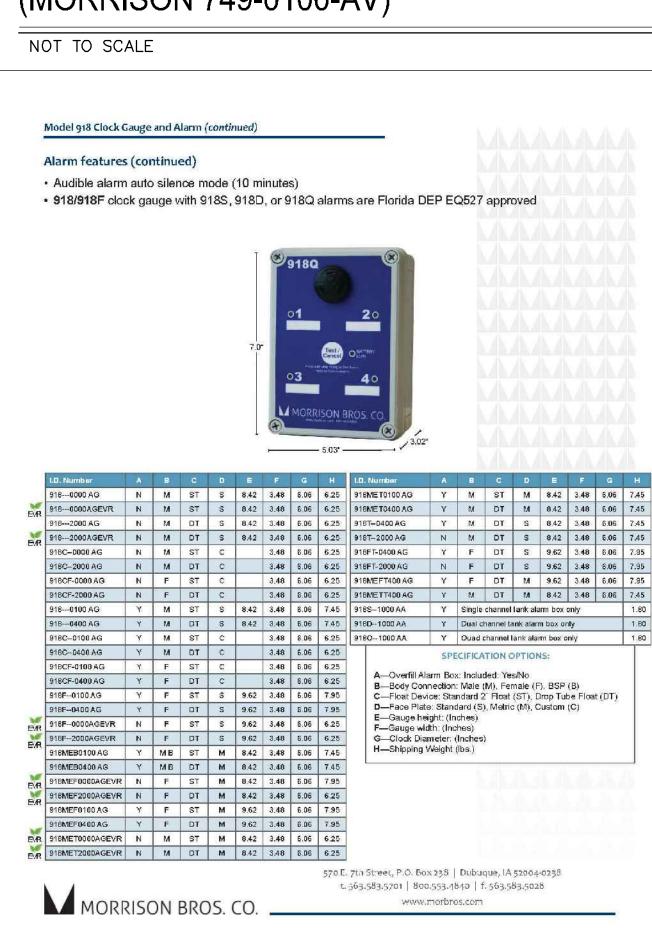
Fig. 749CR 80600 & 749CR 8S600 are C.A.R.B. approved

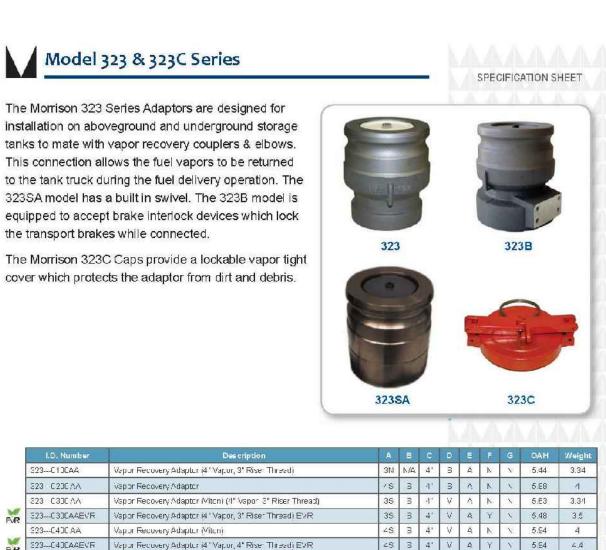
for Stage I & II Vapor Recovery Systems

Fig. 749BSP0100 and 749BSP0200 have British Threads

can result in structural damage to the tank, thei spillage, properly damage, file, injury, and





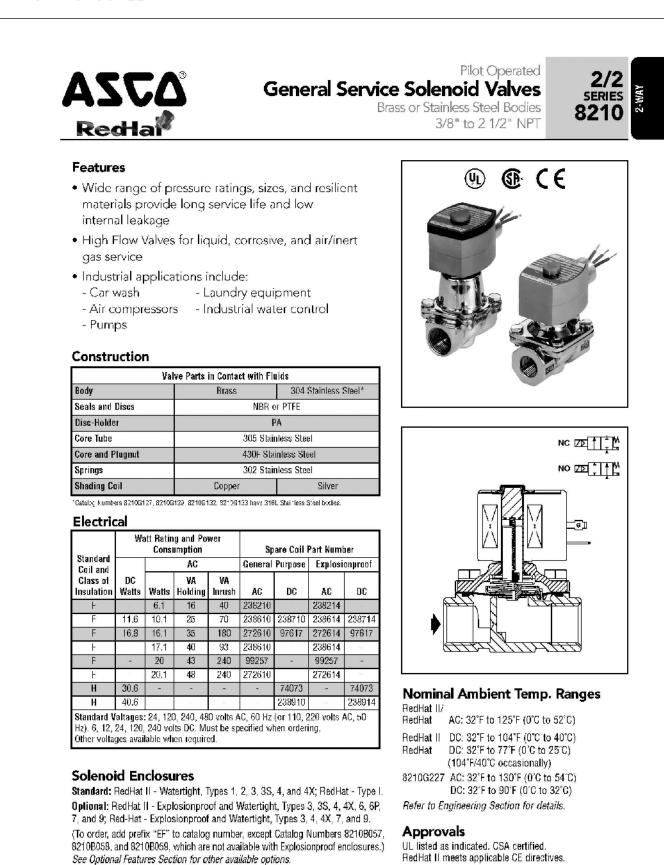




570 E. 7th Street, P.O. Box 238 | Dubuque, IA 52004-0238 t 563.583.5701 | 800.553.4840 | t. 563.583.5028

4" VAPOR RECOVERY ADAPTOR (MORRISON 323-0100-AA) + CAP (323C-0100-AC)

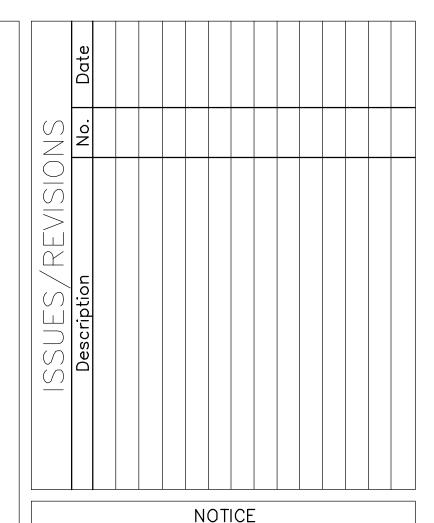
NOT TO SCALE



Refer to Engineering Section for details.

ANTI-SYPHON VALVE (ASCO EF8210G35V)

NOT TO SCALE



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51 Castello Drive, Naples, Florida hone: (352) 684 Fax (800) 660-6 alex@eryouengir

LE AVIATION

LEADING EDGE AVIATION 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

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3977 AVIATION LOOP, SANFORD, FLORIDA 32773

LEADING EDGE AVIATION LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

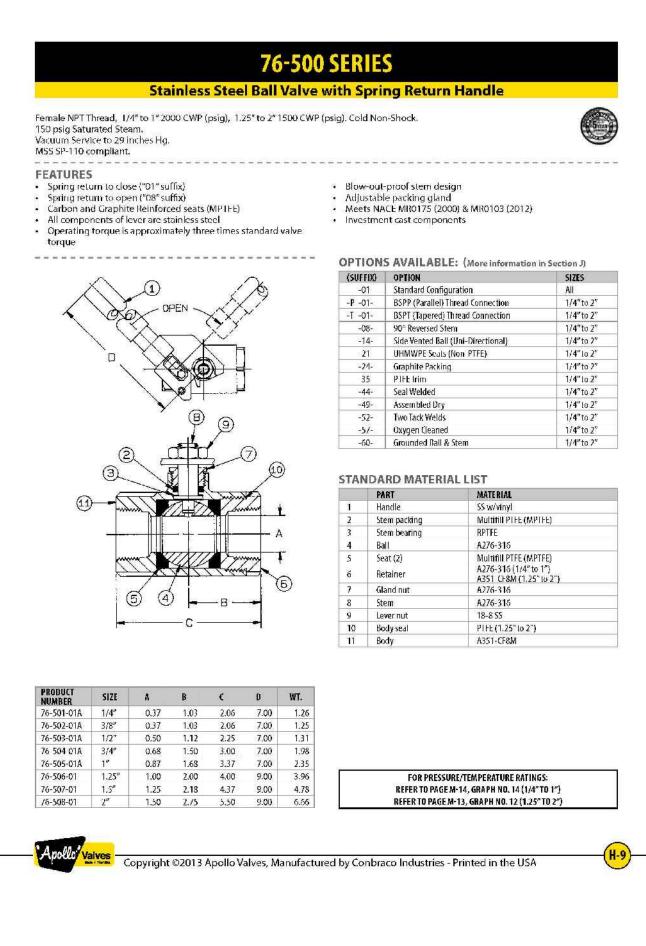
SHEET DESCRIPTION:

FUELING SYSTEM EQUIPMENT SPECIFICATIONS

SEAL & SIGNATURE PROJECT NO.: AEAC-LOGAN DRAWING BY: MSK CHK. BY: AGN

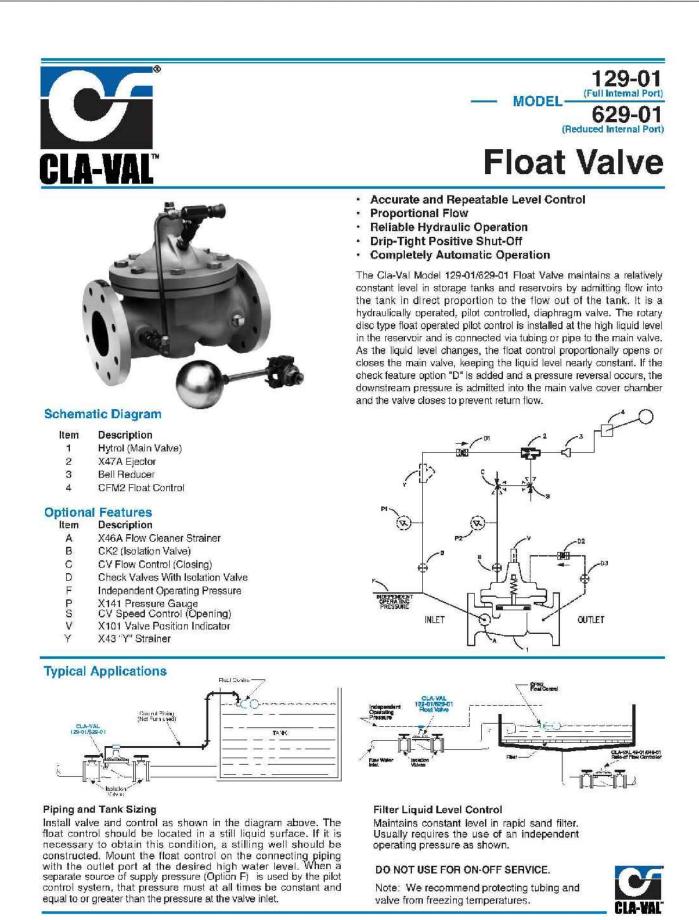
M-200

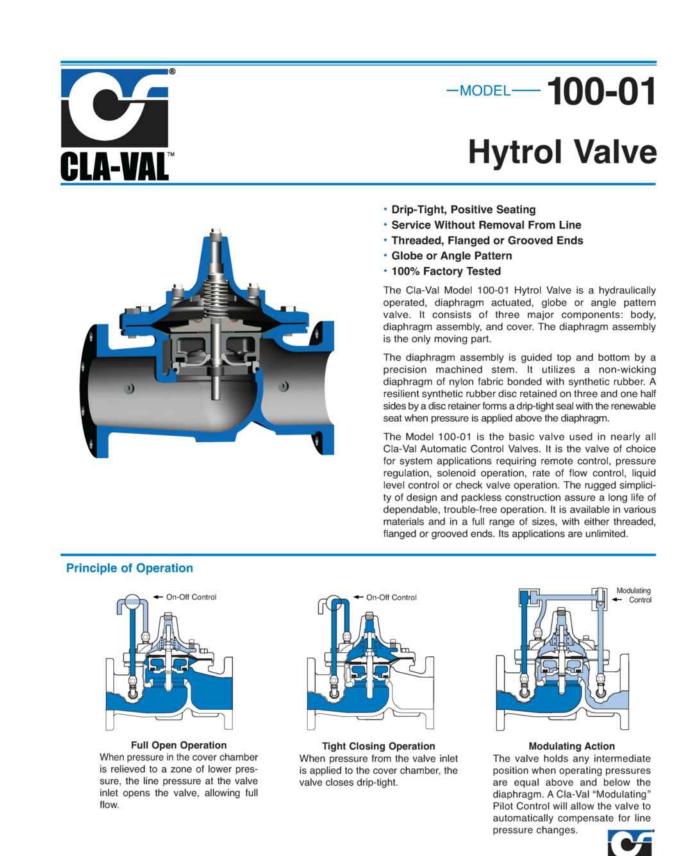
CADD FILE NO.



HAND SUMP PUMP ANTI-SYPHON SPRING RETURN BALL VALVE (APOLLO 76-504-01A)

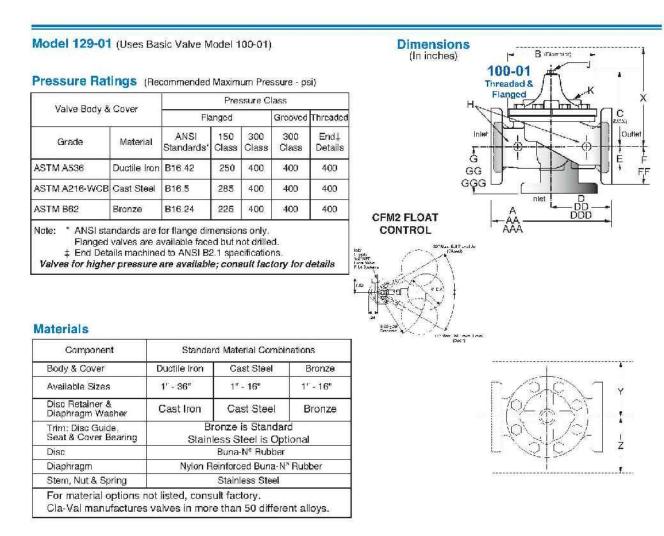
NOT TO SCALE





2" HIGH LEVEL SHUT OFF VALVE (CLA-VAL 100-01-21D)

NOT TO SCALE

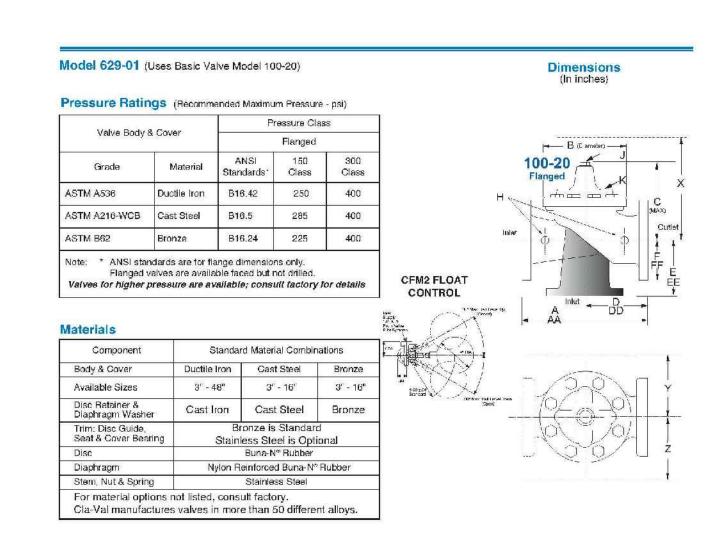


	1000		Of Market and	ches)														
Valve Size (Inches)	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	30	
A Threaded	7.25	7.25	7.25	9.38	11.00	12.50	-	75 <u>—</u>	===	200	9=8	1		_	-	1242	223	
AA 150 ANSI			8.50	9.38	11.00	12.00	15.00	20.00	25.38	29.75	34.00	39.00	41.38	46.00	52.00	61.50	63.00	
AAA 300 ANSI	-		9.00	10.00	11.62	13.25	15.62	21.00	26.38	31.12	35.50	40.50	43.50	47.84	53.62	63.24	64.50	1
B Dia.	5.62	5.62	5.62	6.62	8.00	9.12	11.50	15.75	20.00	23.62	28.00	32.75	35.50	41.50	45.00	53.16	56.00	Ī
C Max.	5.50	5.50	5.50	6.50	7.56	8.19	10.62	13.38	16.00	17.12	20.88	24.19	25.00	39.06	41.90	43.93	54.60	Ī
D Threaded	3.25	3.25	3.25	4.75	5.50	6.25	3=3	=	757	200 3	: 8	175		_	85	-	5723	
DD 150 ANSI	-	-	4.00	4.75	5.50	6.00	7.50	10.00	12.69	14.88	17.00	19.50	20.81	-	()	30.75		Ī
DDD 300 ANSI			4.25	5.00	5.88	6.38	7.88	10.50	13.25	15.56	17.75	20.25	21.62	_		31.62		
E	1.12	1.12	1.12	1.50	1.69	2.06	3.19	4.31	5.31	9.25	10.75	12.62	15.50	12.95	15.00	17.75	21.31	
F 150 ANSI	-	-	2.50	3.00	3.50	3.75	4.50	5.50	6.75	8.00	9.50	10.50	11.75	15.00	16.50	19.25	22.50	j
FF 300 ANSI	_	123	3.08	3.25	3.75	4.13	5.00	6.25	7.50	8.75	10.25	11.50	12.75	15.00	16.50	19.25	24.00	j
G Threaded	1.88	1,88	1.88	3.25	4.00	4.50		-	_	7772:	_	_				_	7771	
GG 150 ANSI	S 1995	II nc.	4.00	3.25	4.00	4.00	5.00	6.00	8.00	8.62	13.75	14.88	15.69	-	10-07	22.06	500	
GGG 300 ANSI		-	4.25	3.50	4.31	4.38	5.31	6.50	8.50	9.31	14.50	15.62	16.50		:: 20	22.90	-	
H NPT Body Tapping	.375	.375	.375	.375	.50	.50	.75	.75	-1	1	1	- 1	1	1	1	1	2	
J NPT Cover Center Plug	.25	.25	.25	.50	.50	.50	.75	.75	1	1	1.25	1.5	2	1.5	1.5	1.5	2	
K NPT Cover Tapping	.375	.375	.375	.375	.50	.50	.75	.75	1	1	1	1	1	1	1	1	2	
Stem Travel	0.4	0.4	0.4	0.6	0.7	0.8	1.1	1.7	2.3	2.8	3.4	4.0	4.5	5.1	5.63	6.75	7.5	
Approx. Ship Wt. Lbs.	15	15	15	35	50	70	140	285	500	780	1165	1600	2265	2982	3900	6200	7703	Ī
X Pilot System	11	11	11	13	14	15	17	29	31	33	36	40	40	43	47	68	79	
Y Pilot System	9	9	9	9	10	11	12	20	22	24	26	29	30	32	34	39	40	
Z Pilot System	9	9	9	9	10	11	12	20	22	24	26	29	30	32	34	39	42	_

Female-Female Pipe Ends XV500P-20, XV500P-24, XV500P-32

2" BRASS BALL VALVE (PARKER XY-500P-32)

NOT TO SCALE



Valve Size (Inches)	3	4	6	8	10	12	14	16	18	20	24	30	36	42	48
A 150 ANSI	10.25	13.88	17.75	21.38	26.00	30.00	34.25	35.00	42.12	48.00	48.00	63.25	65.00	76.00	94.50
AA 300 ANSI	11.00	14.50	18.62	22.38	27.38	31.50	35.75	36,62	43.63	49.62	49.75	63.75	67.00	76.00	94.50
B Dia.	6.62	9.12	11.50	15.75	20.00	23.62	27.47	28.00	35.44	35.44	35.44	53.19	56.00	66.00	66.00
C Max.	7.00	8.62	11.62	15.00	17.88	21.00	20.88	25.75	25.00	31.00	31.00	43.94	54.60	61.50	61.50
D 150 ANSI	450	6.94	8.88	10.69	CF*	-	75		<u></u>						
DD 300 ANSI	(<u>=10</u>	7.25	9.38	11.19	OF'	CF*	CF*	CF'	CF*	CF.	CF.	<u>200</u>		0-3	92
E 150 ANSI	1924	5.50	6.75	7.25	CF*	1944	200		-						
EE 300 ANSI	199	5.81	7.25	7.75	CF*	GF*	GF*	CF*	CF*	CF*	CF*	-		()	-
F 150 ANSI	3.75	4.50	5.50	6.75	8.00	9.50	11.00	11.75	15.88	14.56	17.00	19.88	25.50	28.00	31.50
FF 300 ANSI	4.12	5.00	6.25	7.50	8.75	10.25	11.50	12.75	15.88	16.06	19.00	22.00	27.50	28.00	31.50
H NPT Body Tapping	.375	.50	.75	.75	4	1	1	4	1	1	1	1	2	2	2
J NPT Cover Center Plug	.50	.50	.75	.75	1	1	1.25	1.25	2	2	2	2	2	2	2
K NPT Cover Tapping	.375	.50	.75	.75	1	1	1	1	1	1	1	1	2	2	2
Stem Travel	0.6	0.8	1.1	1.7	2.3	2.8	3.4	3.4	4.5	4.5	4.5	6.5	7.5	8.5	8.5
Approx, Ship Wt. Lbs.	45	85	195	330	625	900	1250	1380	1500	2551	2733	6500	8545	12450	13100
X Pilot System	13	15	27	30	33	36	36	41	40	46	55	68	79	85	86
Y Pilot System	10	11	18	20	22	24	26	26	30	30	30	39	40	45	47
Z Pilot System	10	11	18	20	22	24	26	26	30	30	30	39	42	47	49



The Morrison Fig. 346 Series External Emergency Valve is designed for installation at the outlet of an AST or in a liquid transfer line where product flow must be stopped in the event of a fire. The flanges on the 346FDI models conform to ANSI B16.42 specifications for class 150 raised face ductile iron flanges.

Operational Criteria

250 psi W.O.G.

- 346DI/SS models: cold, non-shock maximum operating pressure
- 200 psi W.O.G. • 346FDI models: cold, non-shock maximum operating pressure

Materials of Construction

- O-ring... Teflon® encapsulated flourocarbon elastomer
- Spring... 302 stainless steel Seal nut/plug... 303 stainless steel
- Handle... Brass
- Fulcrum shaft... 303 stainless steel
- · Groove pin... Steel · Hold open hook... Stainless steel
- **Certifications and Listings** Fuse link is UL listed

m Number	A	В	C	D	E	F	G	H		3	K	L
SFD10200 AV	2"	F	DI	TFE	DI	DI	165°	4	6%"	61/2"		15.0
SFDI0300 AV	3"	F	DI	TFE	DI	DI	1851	4	87765	8%"		29.40
SFD10400 AV	4"	F	DI	TFE	DI	DI	165°	8	11%	111%"		72.0
6DI-1000 AV	-M*		DI	TFE	DI	DI	165°		5"	6"·/16"	T	7.30
3DI-1100 AV	1"		DI	TFE	DI	DI	1851		5"	6°f₁€"	1	7.30
8DI-1200 AV	11/4"		DI	TFE	DI	DI	185°		5*	BIEfic"	1	7.0
6DI-0400 AV	1½"		DI	TFE	DI	DI	165°		5"	5%,*		6.80
8DI-0500 AV	2"		DI	TFE	DI	DI	1851		5"	5°/-e"		6.20
3DI-0600 AV	3"		DI	TFE	DI	DI	165^		7"	B ²¹ /L4"		15.50
6SS-1000 AV	3/4"		SS	TFE	ss	SS	165°		5*	6 ¹⁵ fic"	SS	8.60
6SS-1100 AV	1"		SS	TFE	SS	SS	165°		5 "	6 ^{1€} /1€"	SS	8.60
65S-1200 AV	1%"		SS	TFE	58	SS	165°		5"	6"-11"	58	8.50
855-0100 AV	1%*		22	TEE	22	99	166°		5,0	5"(-"		8.0

-Size (inches) -Mounting connection: Flanged (F) or Female NPT (Blank) -Body/cap material: Ductile iron (DI) or 316 stainless steel (SS) -Gasket material: Teffon* (TFE) -Poppet: Ductile iron (DI) or 316 stainless steel (SS) F—Lever arm: Ductile iron (DI) or 316 stainless steel (SS) G—Fuse link: 185′ F STD. (212′F Optional); Fuse link is UL Listed

SPECIFICATION SHEET

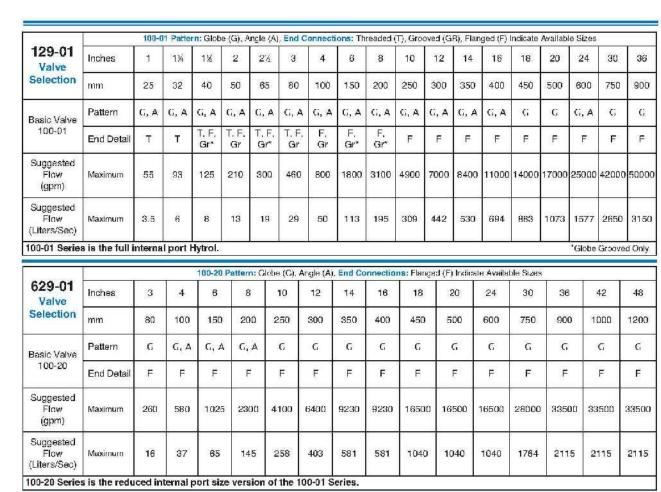
—Height of valve (inches) Length of valve (inches) -Shipping weight (lbs)

MORRISON BROS. CO.

5/o E. /th Street, P.O. Box 238 | Dubuque, IA 52004-0238 t. 563.583.5701 | 800.553.4840 | f. 563.583.5028 www.morbres.com

2" EXTERNAL E-VALVE (MORRISON 346FDI-0200-AV)

NOT TO SCALE



Aluminum, Bronze and Stainless Steel

Pilot System Specifications Pressure Rating **Optional Materials** Maximum: 300 psi

Temperature Range Water: to 180°F Materials Pilot Control System:

Control Piping (customer supplied) Use either copper tubing or brass pipe between CFM2 Float Control and the main valve pilot system. 1/2" dia, for distances less than 25 feet: Cast Bronze ASTM B-62 with 3/4' dia. for greater distances. 303 Stainless Steel Trim, Bronze fittings and copper tubing.

> CFM2 FLOAT CONTROL

3. Pattern - Globe or Angle 4. Pressure Class Threaded or Flanged Materials Desired Desired Options 8. When Vertically Installed

1. Catalog No. 129-01 or No. 629-01

When Ordering,

Please Specify

Valve Size

P.O. Box 1325 • Newport Beach, CA 92659-0325 • Phone: 949-722-4800 • Fax: 949-548-5441 • E-mail: daval@cla-val.com • Website da-val.com • Copyright Cla-Val 2014 | Printed in USA | Specifications subject to change without notice.

LEADING EDGE AVIATION 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321 American 3977 AVIATION LOOP, SANFORD, FLORIDA 32773 PHONE: (631) 586-2000 LEADING EDGE AVIATION LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321 SHEET DESCRIPTION:

PhD

FUELING SYSTEM EQUIPMENT SPECIFICATIONS

NOTICE

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SEAL & SIGNATURE

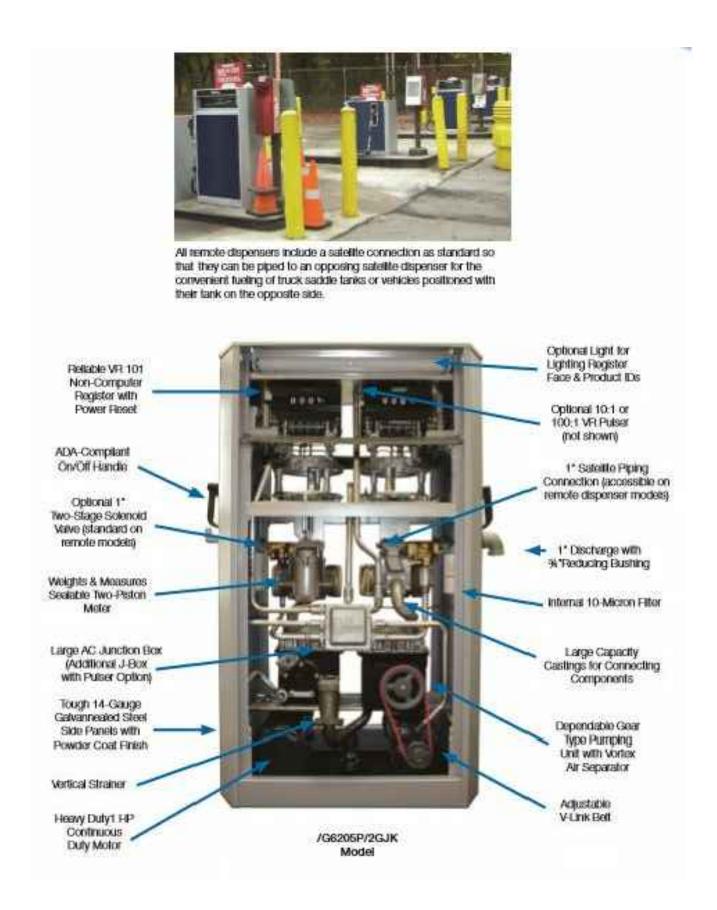
CHK. BY: M-210

PROJECT NO.: AEAC-LOGAN

DRAWING BY: MSK

CADD FILE NO. LOGAN-CACHE-Set.dwg

95% LEVEL FLOAT - (CLA-VAL CFM2)



SINGLE PRODUCT SUCTION PUMP DISPENSER (WAYNE G6201P/2GJK)

NOT TO SCALE



75' STATIC BONDING REEL (AMETEK HUNTER ML-2930-14

NOT TO SCALE



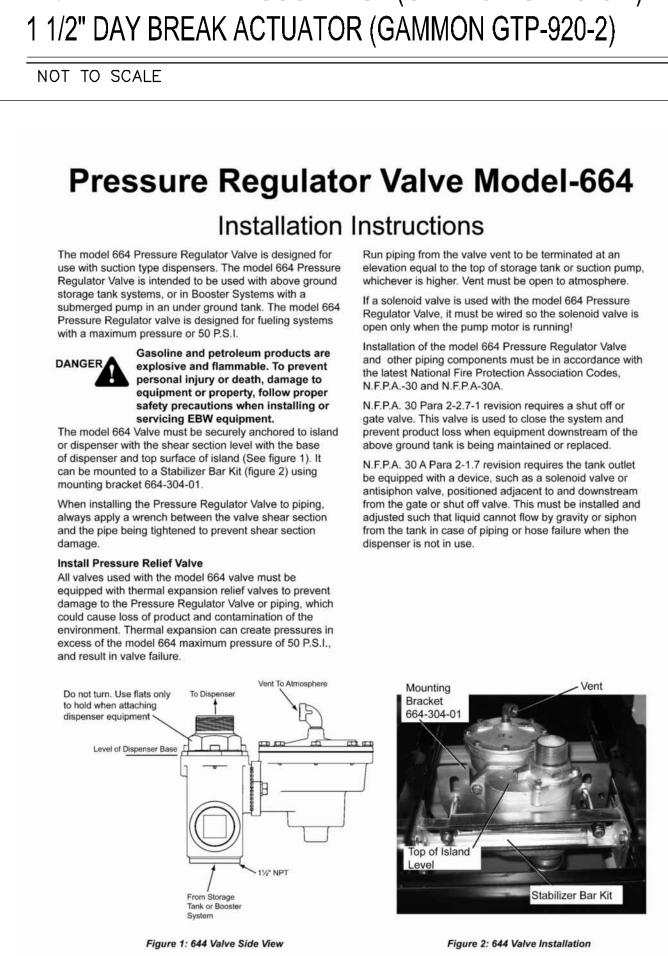
Actuator installed on overwing

nozzle permits quick change from

1 1/2" DRY BREAK DISCONNECT (GAMMON GTP-919-1) +

All couplers and actuators are made of aluminum unless

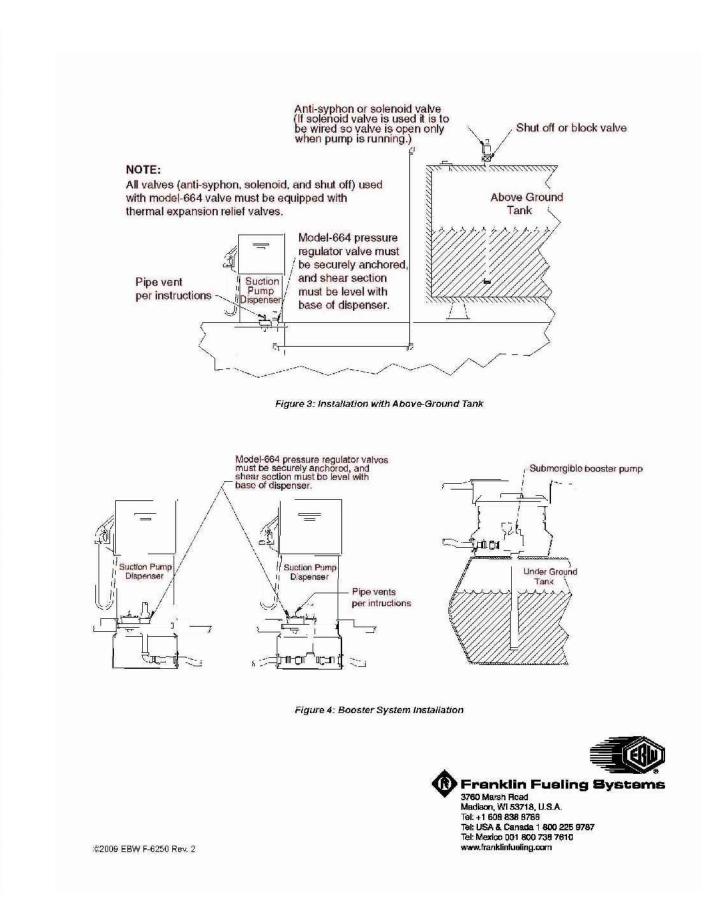
stated otherwise. They are NOT designed for suction



OPW 295SA & SAJ Aircraft Nozzles For Overwing Aircraft Service Main Stem: Stainless ste Stem Seal: Buna-N O-Ring Disc: Viton® Spout: Aluminum Easily replaced spout – the spout Aluminum Body – lighter weight, is easily threaded into the body. FLOW RATE-GPM (GASOLINE) Replacement spouts are readily Dual Poppets – easy-to-open nozzle available from OPW. against high inlet pressures. Built-In Swivel – eliminates twisting Color-Coded Composite Lever and kinking of the hose. This swivel Guards - helps distinguish between is electroless nickel-plated and has AVGAS and Jet A. Easily replaced in full-bearing surfaces. lever guard kit. ◆ NPT Female Threads at Inlet End Right Angle Design – provides 2959A-0135, 1" x 1 1/4" x 1" of 295SA - accepts all 1", 1-1/4" larger lever area for better grip and 295\$A-0136, 1 1/4" x 1 1/4" x 1" or 1-1/2" male connections. easier control. 295SA-0137, 1 1/2" x 1" NPT Female Threads At Inlet Vinyl-Coated Lever – insulates fingers End Of 295SAJ – accepts all 0 40 80 120 160 200 240 280 320 360 1-1/2" male connections. 100 Mesh Strainer – prevents foreign Unique Jet Aircraft Spout Design of FLOW RATE-LIMIN. (GASOLINE) matter from entering fuel tank; easy 295SAJ - to help prevent inadvertent to remove and clean. fueling of piston engine aircraft with Dust Cap – keeps spout free from dirt and stops fuel drippage Ground Wire Assembly – included on Ordering Specifications when connected. all aviation nozzles. Inlet Thread Spout O.D Adjustable Dash Pot – permits in. mm lbs. kg in. mn Design working pressure adjusting the main poppet closure 2955A-0135 1 25 4.60 2.10 1 25 rate over a wide range of flows 110 psi (7.58 bar) maximum pressure 2955A-0136 11/4 32 4.50 2.00 1 25 to overcome line shock with 29554-0137 11/2 38 4.50 2.00 1 25 minimum afterflow. 295\$A-0138 11/2 38 5,10 2,30 11/s 2955AJ-0200 11/2 **38** 5.60 **2.50** 21/3 **Level Guard Replacement Kits** 295SAC-0156* 1¼ 32 4,50 2,00 1 Product # 295SAC-0157* 1½ **38** 4.50 **2.00** 295KLG-0300 295SA-0135, 0136, 0137, 295SAC-0156, 0157 Red 2955ACJ-0200* 1½ 38 5.65 2.60 2½ 54 All lever guard kits include new lever sub-assembly. 295 Series Instruction Sheet Order Number: H09237PA NOTE: See OPW's Website at www.opwglobal.com guides, how-to-use guide and to view the Do's & Don'ts at the Gas Pump video.

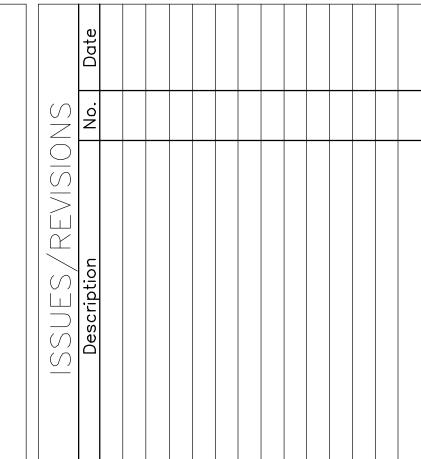
1" OVERWING NOZZLE (OPW 295 SAC-0156)

NOT TO SCALE



EBW PRESSURE REGULATOR VALVE (MODEL 664)

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LEADING EDGE AVIATION 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

American

3977 AVIATION LOOP, SANFORD, FLORIDA 32773 PHONE: (631) 586-2000

LEADING EDGE AVIATION LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

SHEET DESCRIPTION:

PhD

ngineer

onsulting

Office

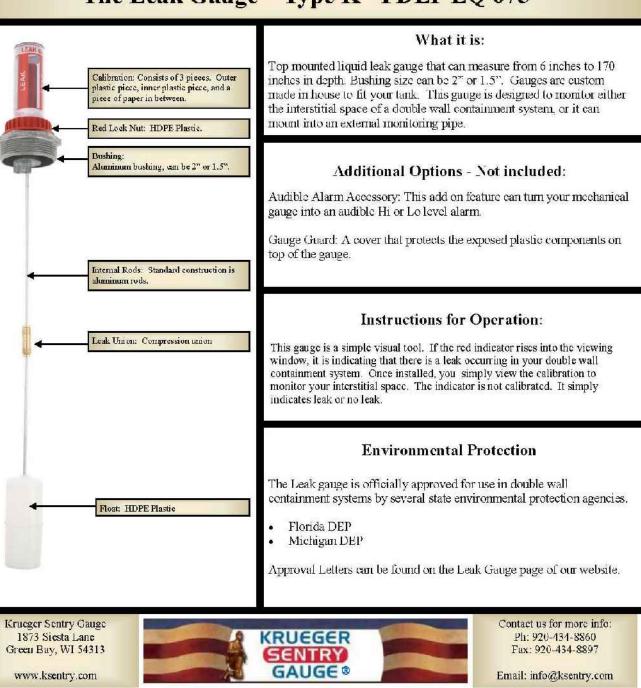
FUELING SYSTEM EQUIPMENT SPECIFICATIONS

M-220

SEAL & SIGNATURE PROJECT NO.: AEAC-LOGAN DRAWING BY: MSK CHK. BY:

CADD FILE NO. LOGAN-CACHE-Set.dwg

The Leak Gauge—Type K - FDEP EQ 675



KRUEGER

Ordering, Installation, Maintenance and Operation

Part Number Layout-

Example Part numbers

thread in the bushing.

thread in the bushing.

K-2-48

K-2-24-GLC

K-(Opening Size)-(interstitial depth)-(options)

State the opening size your are using. (1.5"---2")

State the interstitial tank depth (pictured left).

State the gauge type (Type K)

this if you want standard materials.

Assemble for single rod gauge- 6 to 42 inch:

assembly for dual rod gauge- 43 to 76 inch:

. To disassemble press on top of connector.

ssembly for multiple rod gauge- 77 inches and up:

. Remove cotton ball from top of calibration.

wrench to tighten or loosen connectors.

calibrated. It simply indicates leak or no leak.

Connect rods together with connector.

Ordering Instructions:

List other material options and accessories that you prefer. These

Installation Instructions:

Lower gauge into monitoring space, and thread in the bushing.

Be sure connection is secure, lower into monitoring space, and

. Connect rods together with brass connectors, use 3/8" and 7/16"

Be sure connection is secure, lower into monitoring space, and

Instructions for Operation:

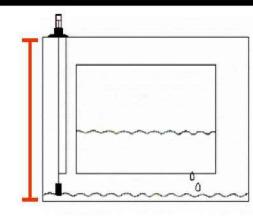
This gauge is a simple visual tool. If the red indicator rises into the

calibration to monitor your interstitial space. The indicator is not

iewing window, it is indicating that there is a leak occurring in your

double wall containment system. Once installed, you simply view the

options and accessories can be located on page 2 of this document. Skip



Maintenance:

The Leak Gauge can fail in one of three ways

• The ealibration assembly on the outside of

the tank can become weathered, unreadable, or

The connecting rods that extend into the

• The float that sits at the bottom of the gauge

can come off or become saturated with product.

• Once per month: Inspect the top of the unit

once per month to ensure that the calibration is

(these top pieces can be easily replaced without

• Once every 6 months: Unthread the unit

and earefully remove it from the tank. Be sure

all rods are connected as one piece from the red indicator all the way down to the float. Also

inspect the float for damage or leakage. To ensure proper working order, manually raise the

float arm from empty to full to be sure that the

red indicator freely moves up and down with the

visible, readable, and unbroken.

motion of the float rod.

having to replace the whole gauge)

Recommended Maintenance Procedures:

tank can come apart or become damaged.

Krueger Sentry Cauge	
1873 Siesta Lane	
Comm. Day, 1371 54212	

Krueger Sentry Gauge 1873 Siesta Lane Green Bay, WI 54313 www.ksentry.com



Ph: 920-434-8860 Fax: 920-434-8897 imail: info@ksentry.com

INTERSTITIAL MONITOR (KRUGER K-2-96)

NOT TO SCALE

Intel® 13827 processor with 4 GB random access memory and 120 GB of solid-state flash memory. This non volatile storage provides protection of all transaction data in the event of a power loss.

Direct-connect 10/100/1000 Ethernet is standard, in addition to the Cellular and WiFi options.

All M4000 models come with a daylight readable 1024x600 color pixel LCD display, with auto-dimming, that provides plenty of room for detailed operating

Card Reader Lasy-to-use insert style card reader captures ANSI

encryption of card's account number is standard. Thermal Printer Prints receipts which contain all the pertinent information including date, time, amount, gallons, fuel

track one and track two data. Version with self-

type, customer name, and total amount of the sale. Changing paper rolls is fast and easy. Unit Construction

Constructed of stainless steel with gasket pretected key-locked doors providing protection for the enclosed computer equipment. A powder coat finish ensures that the terminal will look good for years to

Additional Safety Features Custom safety features may be displayed prior to allowing fueling. These can be configured to have a customer acknowledge the statement before

proceeding.

Rugged, backlit, touch-sensitive numeric keypad and dual display-side buttons are included. Key activation provides tactile vibration feedback.

business days depending on the banking institution. Oil Company / Private Cards

standard Hardware Features

110 240 VAC 50/60 Hz iternal 12VDC power supply

Hose Control Capability

Pulser Compatibility

switching at up to 200 pulses / sec.

electronic dispensers and registers

Siteminder (web application)

Credit Card Processing

as private issue cards.

2. A dry contact switch which closes when the mechanical register has been reset to zero AND opens

3. An electrically operated main flow valve that will allow full fuel flow when provided with a Line Voltage

4. An electrically operated slow flow valve which, when energized at Line Voltage, will restrict fuel flow to

5. If an electric reset motor is used, it should also operate at line Voltage (a separate signal is provided by

Figure 4: Reset Motor Circuit

Wiring Requirements - Option A

The Field Wiring diagrams on this page and the next describes general requirements for conduits and wires. The

1. Pulser signal wires (Low voltage conduit from fuel dispenser to pedestal as shown in the drawing below

. Dispenser component signal wires (High voltage conduit from fuel dispenser to pedestal (Conduit B)

6. Any other required conduit, typically for a tank mounted pump motor(s), hose reels, outdoor lighting,

Figure 7 - Dispenser Field Wiring Diagram - Option A Description of wires inside conduit

Low voitage for Ethernet Caple (if needed)

High voltage for terminal and dispenser powe

High voltage pump control wiring.

Low voltage for pulser wires

NOTE: This diagram is for a single dispenser setura. For more than one dispenser, addiadd tional B & Cicenduits for each additional dispenser and additional dispenser.

NOTE: The law vallage conductors may be a cool in the high so tage conduit. If they are in shielded one of This would alim nate the requirement for a

IMPORTANT NOTES: Use stranded wire only. Each pump motor must be actuated through 30 amoire ays. This applies to 120V and 240V motors

1/2" Other required conduit:

as Conduit A). Each pulser circuit has two inputs plus an isolated ground and 12VDC. Refer to Section 3

actual number of wires ultimately depend on individual components, their location, power ratings, etc. In

. A source of local power (High voltage conduit from circuit breaker to pedestal. (Condult D) Pump control wiring (High voltage conduit from pedestal to pump control relay. (Conduit E)

. One Cat 5 or 6 Ethernet cable (if applicable) to pedestal. (Conduit C)

when the pump handle is returned to the "OFF" position (Figure 4).

authorization to bank deposits.

Size (approx.): 69" H x 20" W x 9.5" D

Weight: shipped in 2 parts, 54 + 58 lbs

-20.2°F to +158°F (-29°C to +70°C)

Standard system controls one mechanical hose;

expansion kits available for up to 32 total hoses; Up to

8 mechanical hoses and the balance can be electronic

Able to handle pulser resolutions from 1:1 to 1000:1,

both single and dual channels: quadrature and

Designed to work with existing or new mechanical and

The powerful, yet easy-to-use Siteminder software

Tuns from your device's web browser and is used to

set prices, perform unit configuration and view sales

transactions processed by your M4000 automated

Olpod provides the necessary banking relationships

for complete credit card processing, from

MasterCard, VISA, American Express & Discover

The terminal allows you to transmit bank card

transactions to a card processing firm, which deposits

the lunds directly into a designated bank account.

Deposits are typically available in 24 hours to two

QI pod accepts all oil company aviation cards as well

QTpcd (303) 444-3590

Figure 2 - The OPW "Pipe Bomb" Pulser

the terminal to power each reset motor).

OTpod (303) 444-3590

general, these are what is required;

separate conduit just for low voltage wires

QTpod (303) 444-3590

If you do atte from these requirements, please ta l'QTpod at (303) 444-3590.



M4000 Components

System Requirements

The M4000 Automated Fuel Terminal consists of a terminal head that is attached to a pedestal. Most site preparation work centers around the running of conduit protected conductors into the mounting pad for connection within the pedestal.

The pedestal and head are shipped in separate 45" x 15" x 25" containers weighing 54 and 58 pounds.

The pedestal is designed with a single door and a shelf that is over 18" from the bottom (Figure 9). The shelf is to be drilled for conduit holes so that rigid, explosion-proof conduit can be stubbed up to the shelf. Once wires in the conduit are pulled and rung out, they can be terminated to the circuitry inside the pedestal. For Direct Pump interfacing that would-be the DPI Relay Module, which itself is mounted onto the Direct Pump Interface (DPI) board. For Serial Protocol Dispensers, it would be 3rd party interface hardware. The optional high visibility Multi-Line Display interface installs inside the pedestal and connects to the DPI board via a ribbon cable.



The QT Petroleum on Demand M4000 Automated Fuel Terminal has been designed to directly control multiple mechanical and/or electrical dispensers. A maximum total of 32 dispensers can be controlled with up to eight of those being direct mechanical. The standard system comes equipped to handle a single dispenser or fueling point by default. Optional expansion DPI Relay-Module Boards provide support for additional dispensers for fueling points. The M4000 requires power in the range of 110 - 240 VAC, 50/60 Hz and is referred to as "Line Voltage" in the remainder of the documentation.

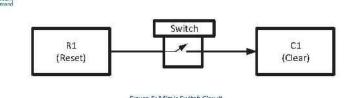
Note: The QT Petroleum on Demand M4000 may require a 3rd party serial interface for some electronic dispensers, such as the Wayne Select or Gilbarco Legacy models. Call QT Petroleum on Demand for guidance if you have an electronic dispenser.

The following list of items are required equipment to successfully interface a mechanical dispenser with the

1. A fuel flow pulser must be fitted to each dispenser. The M4000 can be configured to work with a variety of pulser types and resolutions, including pulses derived from the penny wheel. When using the penny wheel, the pulser should provide one pulse per penny of fuel dispensed. The pulser may be either solid state or dry contact but it must switch a 12 Volt DC load at a frequency of up to 200 pulses/second. The Western Electronics and OPW model 500 and Veeder-Root solid state pulsers have been used with good success (Figures 2 & 3). The M4000 provides an isolated 12 VDC supply for each dispenser to power solid

QTpod (303) 444-3590





the M4000 direct dispenser interface.

- 8. The terminal and dispenser components are powered by Line Voltage line power. It is highly recommended that a large (10 AWG) ground wire is used in this conduit for lightening dissipation
- 9. Referring to the provided wiring guide & and schematic ensure that all high voltage circuits are delivered through the appropriate underground conduit to the terminal location. Typically, 1/2" and a 3/4" rigid conduit is run from each dispenser directly to the pedestal. In addition, a 3/4" rigid conduit is typically run from the pedestal to the nearest electrical distribution box.
- 10. Be sure each high voltage line is labeled correctly with both the signal name and dispenser number. Do not mix high voltage and low voltage wires within the conduits (unless low voltage wire is shielded) as mixing may cause unreliable system operation. Minor variations may exist such as the location of the main pump motors. Contact QTpod for assistance if you are unsure about your application.

QTpod (303) 444-3590



Amarea of an at enfroms to to site is the pama actual on once by. In general, it is necessary to wire the pamp metar (s) through a rela-that the current drawnequired by the pama motor(s) does not pass through the CPI pagrd (see Figure 8). The relay(s) can be located anywhere that "sconvenient (Electrical Service Panellor pedestal, for example) and the pump actuation wires can be routed directly to the parmo or share conduit with the rest of the high voltage wires.

Note: When setting uple ectric hase reels, consider routing the hose reel circuit through the NC side of the aumpire ayise that while the

High voltage pump control wiring

IMPGRTANT NOTES: Use stranded wire only. Each pump motor must be actuated through 30 amp relays. This applies to 120V and 240V motors.

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Exqure 5: Mimic Switch Circuit Two examples (Figures 4 & 5) of dry contact switch schematics. The reset motor circuit is

typical for gas station style dispensers. The Mimic Switch Circuit is the minimum necessary for

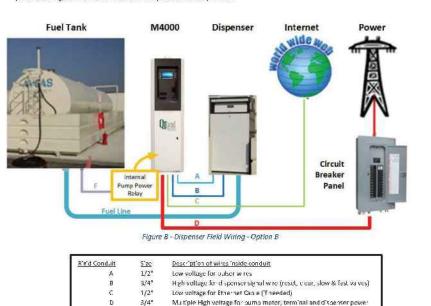
- 6. The DPI board is not designed to directly drive pump motors. We require the use of high current relays (sometimes referred to as contactors) on the pump control output circuits (P1/P2, etc.) to keep the terminal electronics isolated from high current drawn by fuel pump motors. See Figures 7 & 8 for examples of relay placement. QTpod recommends using solid-state relays (SSRs) as they do not generate electrical arcing noise. They are required if the relays are located within the pedestal, where the electrical noise can adversely affect the digital electronics (Contact QTpod support for SSR recommendations).
- 7. A CATS or CAT6 Ethernet cabling is needed if a direct internet connection is used for card authorization & settlement as well as communication with the QTpod Cloud application. Cellular or Wi-Fi can be used depending on distance and site coverage.



Wiring Requirements - Option B

Typically, your conduit and wifing layout will look like either "Option A" or "Option B" depicted in (Figures 7-8-8). Use them as a starting point to map out your actual wining requirements. Keep in mind, these are recommendations only. You are responsible for Electrical Code

pump is funning, the hose reel is "dead" and thus presents no safety hazard.



NCTE: This diagram is for a single dispenser setup. For more than one dispenser, addiadditional Bi& C conduits for each additional dispenser NOTE: The low voltage conductors may be blaced in the high voltage conduit if they are in sole dedicable. This would eliminate the requirement for a

QT PETROLEUM ON DEMAND (QT POD) AUTOMATED FUELING TERMINAL CARD READER (MODEL M 4000)

NOT TO SCALE

1 Castello Drive, Naples, Florida

LE AVIATION

NOTICE

IT IS A VIOLATION OF LAW FOR ANY

PERSON, UNLESS ACTING UNDER THE

ENGINEER, OR LICENSED ARCHITECT, TO

ALTER THIS DRAWING

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DIRECTION OF A PROFESSIONAL

LEADING EDGE AVIATION 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

American

3977 AVIATION LOOP, SANFORD, FLORIDA 32773 PHONE: (631) 586-2000

LEADING EDGE AVIATION LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

SHEET DESCRIPTION:

FUELING SYSTEM EQUIPMENT SPECIFICATIONS

SEAL & SIGNATURE PROJECT NO.: AEAC-LOGAN DRAWING BY: MSK CHK. BY:

M-230

CADD FILE NO. LOGAN-CACHE-Set.dwg

VF-61, VF-61E, VF-62

Clean Dry Fuels and Oils with High Performance Aquacon® Filter Cartridges



Features

- Free and emulsified water to less than 5 ppm
- 1/2 micrometer particulate
- removal Provides protection against
- "slugs" of water Pressure increase signals
- cartridge change
- Use with existing filter housings



Contact Information: Applications

Parker Hannifin Corporation Velcon Filtration Division 1210 Garden of the Gods Road

Colorado Springs, CO 80907 phone 719 531 5855 fax 719 531 5690

 Biodiesel Fuel vfsales@parker.com

www.velcon.com

 Insulating Oil Hydraulic Oil Lubricating Oil

 Motor Gasoline Diesel fuel

Jet Fuel

Avgas

Selected Solvents

coated exterior and interior. VF-61E: Die cast aluminum head; stainless steel band

Parker Velcon **ENGINEERING YOUR SUCCESS.**

Over Pressure Description Protection

The VF-61, and VF-62 are versatile filter housings designed for use with several different high performance **Aquacon** filter cartridges, as well as a variety of paper filters and coalescer/ separator cartridges. Refer to the cartridge selection table on page 4.

particulates.(See caution)

to change cartridges.

monitor applications.

Specification

VF-61, VF-61E, VF-62:

Max. Pressure: 150 psi

Connection: 1½" NPT

and 1/2" drain valve

Seal: Buna-N O-Ring (P/N

VF-61, VF-62: Die cast

aluminum head and closure

shell with TGIC-Polyester

clamp assembly; carbon steel

1/8" brass petcock vent valve

Filter Housing

Material:

As a cartridge reaches its water-holding

limit, the media expands very rapidly

and restricts the flow. For oils and other

will rapidly increase, signaling the need

The VF-61, with ACO series cartridges

nstalled, has become the standard

for low flow rate full flow aviation fuel

Use the VF-61E with band clamp

closure for areas with limited space.

of water, the differential pressure across an absorbent cartridge (AC, ACO, AD, or ASL Series cartridges) will immediately increase. Pressure bypasses or other means to limit the Aquacon cartridges filter out water inlet pressure to 75 psi (5 bar) should by chemically locking it into layers of super-absorbent media. Water removal be installed to prevent cartridge from efficiency is not affected by common surfactants or additives. Water capacity is as much as 1-1/2 quarts, depending on the flow rate. These cartridges also

Recommended effectively filter out dirt, rust and other Spares:

When exposed to a high concentration

- 1 each G-0986 Buna-N O-Ring . Specify Model VF-61, VF-61E, or If Viton O-Rings are desired, 2 VF-62 Filter Housing
- high viscosity liquids, the pressure drop

 6 each Cartridges

and interior.

VF-61: 10 lbs.,

VF-61E: 8 lbs.,

VF-62: 16 lbs.,

pH Range: 5 - 9

Shipping Weight: 12lbs.

Shipping Weight: 10 lbs.\

Shipping Weight: 18 lbs.

Max. Operating Temp.: 200°F

Collapse Strength: 75 psi (5 bar)

Nom. Filtration Efficiency: 98%

Weight:

clamp; carbon steel shell with

Buna-N O-Ring and 1/8" valve and 1/2" drain plug installed. 1/2" petcock drain valve is shipped

Cartridges are not supplied and must be ordered separately. Viton O-Rings (P/N G-0986A)

Unit is supplied with G-0986

o protect the fuel system,

including the filter housing &

other components, be sure to

install pressure relief valve(s).

Do not use Aquacon[©] absorbent

containing anti-icing additives, or with gasoline/alcohol blends.

cartridges (AC, ACO, AD or ASL

Series) with pre-mixed jet fuel

Ordering

ordered separately. They are recommended for gasoline and solvent applications. Caution

are available but must be

TGIC-Polyester coated exterior Options

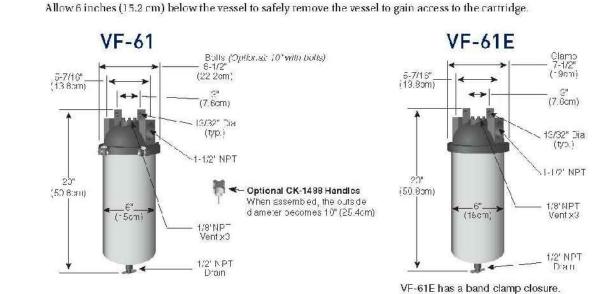
· Part Number 554Y020 is a Carbon Steel 1/2" NPT Ball Valve, with Mounting Nipple

 Part Number CK-1488 quick release hand bolts (set of 4) to replace closure bolts (as shown on page 2) VF-61 and VF-62 only.

 Part Number 10678 Differential Pressure Gauge Assembly (See Form #1959)

Dimensional Drawings

Drawings are not to scale. Dimensions are shown for estimating purposes only.

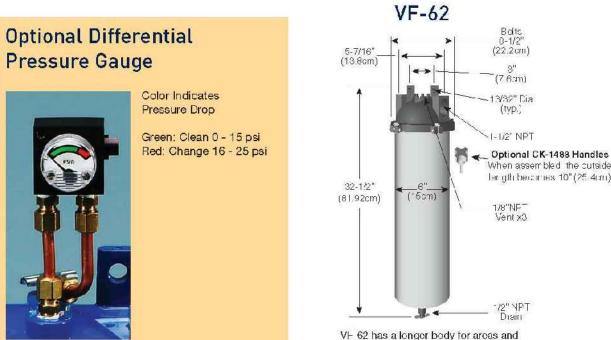


Use in areas with limited space.

When assembled the cutside

length becomes 10" (25,4cm)

ENGINEERING YOUR SUCCESS.



applications that require higher flow rate Parker Velcon

Filter Cartridge Selection Table

Housing P/N	Product being filtered	Application	Cartridge P/N	Data Sheet	Туре	Micron	Flow Rate (GPM)	
			ACO-512P3L	1681	Aquacon®	0.3	5-50	
	Jet Fuel &		ACO-51201L	1001	(Absorbent)	0.5	5-50	
	Avgas ^{n;}		OS-51288	1858	Coalescer/ Separator	0.5	Jet: 5-35 Avgas: 5-45	
	Mo-gas		AC-51205	1582	Aquacon [©]	5	5-50	
		Dirt & Free	AD-51225	1655	(Absorbent)	25	15-50	
-61E	Diesel ^(t)	water	OS-51286	2118	Coalescer/ Separator	5	5-18	
VF-61, VF-61E	Biodiesel		AD-51225	1655	Aquacon [©] (Absorbent)	25	15-50	
Ŗ	011-		AC-51205	1582		5	Varies with oi	
70	Oils		AD-51225	1655	Aquacon [©] (Absorbent)	25	viscosity(2)	
	Solvents		ASL-51201	1692	(Ausorbent)	1	5-50	
			FO-512PL1/2			0.5		
	ALL	D:-1	FO-512PL05	1549	Paper Filter	5	Fuels: 5-50	
		Dirt	FO-512PL25			25	Oils: Varies wi	
			FOS-512PL25	1734	Synthetic Filter	25		
	Jet Fuel & Avgas®		ACO-52401L	1681		0.5	10-100	
	Motor Gasoline		AC-52405	1582		5	10-100	
	Diesel		AD 50405	300F		05	20.400	
	Biodiesel	Dirt & Free	AD-52425	1655	Aquacon [®]	25	30-100	
VF-62	Oils	water	AC-52405	1582	(Absorbent)	5	Varies with viscosity	
>	Olio		AD-52425	1655		25	See Form #1709	
	Solvents		ASL-52401	1692		1	10-100	
			FO-524PL1/2			0.5		
	ALL	Dirt	FO-524PL05	1549	Paper Filter	5	2-100	
			FO-524PL25			25		

(2) See Data Sheet #1709 for absorbent cartifdge (AC, AD) flow rates. (3) See Data Sheet #1532 for paper filter (FO) flow rates, see Data Sheet #1747 for synthetic filter (FOS) flow rates.

Please consult installation instructions and operating procedures that accompany products for more detailed information.

© 2013 farker Famil I'n Odrodialron, Product harries are hademan is or registered haden atkeid it en reapeouve con pallies.

Parker Hannifin Corporation Velcon Filtration Division 1210 Garden of the Gods Road Colorado Springs, CO 80907 USA tel +1 719 531 5855

OPTIONS

• Part Number 554Y020 is a Carbon Steel 1/2" NPT

• Part Number CK-1488 quick release hand bolts

(set of 4) to replace closure bolts (as shown on

• Part Number 10678 Differential Pressure Gauge

Color Indicates

ressure Drop

Green: Clean 0 - 15 psi

Red: Change 16 - 25 psi

DIFFERENTIAL PRESSURE GAUGE

OVER PRESSURE PROTECTION

vent cartridge from collapsing.

When exposed to a high concentration of water, the

ACO, AD, or ASL Series cartridges) will immediately

differential pressure across an absorbent cartridge (AC,

increase. Pressure bypasses or other means to limit the

inlet pressure to 75 psi (5 bar) should be installed to pre-

— CAUTION —

anti-icing additives, or with gasoline/alcohol blends.

Ball Valve, with Mounting Nipple

page 2) VF-61 and VF-62 only.

Assembly (See Form #1959)

FILTER VESSEL (VELCON VF-61)

NOT TO SCALE

ENGINEERING YOUR SUCCESS.

Filter Housings VF-61, VF-61E, VF-62

Clean Dry Fuels and Oils with **High Performance** Aquacon® **Filter Cartridges**

FEATURES

• Free and emulsified water to less than 5 ppm • 1/2 micrometer particulate removal . Provides protection against "slugs" of water • Pressure increase signals cartridge change

Use with existing filter housings

DESCRIPTION

The VF-61, and VF-62 are versatile filter housings designed for use with several different high performance Aquacon filter cartridges, as well as a variety of paper filters and coalescer/separator cartridges. Refer to the cartridge selection table on page 3.

Aquacon cartridges filter out water by chemically locking it into layers of super-absorbent media. Water removal efficiency is not affected by common surfactants or additives. Water capacity is as much as 11/2 quarts, depending on the flow rate. These cartridges also effectively filter out dirt, rust and other particulates. (See caution, page 4)

As a cartridge reaches its water-holding limit, the media expands very rapidly and restricts the flow. For oils and other high viscosity liquids, the pressure drop will rapidly increase, signaling the need to change cartridges. The VF-61, with ACO series cartridges installed, has become the standard for low flow rate full flow aviation

Use the VF-61E with band clamp closure for areas with limited space.

APPLICATIONS

fuel monitor applications.

Jet Fuel Avgas Motor Gasoline Diesel Fuel Biodiesel Fuel

@ 2011 Velcon Filters, LLC.

Insulating Oil Hydraulic Oil Lubricating Oil Selected Solvents



(Report)

VF-61





VF-61E

with Band Clamp Closure

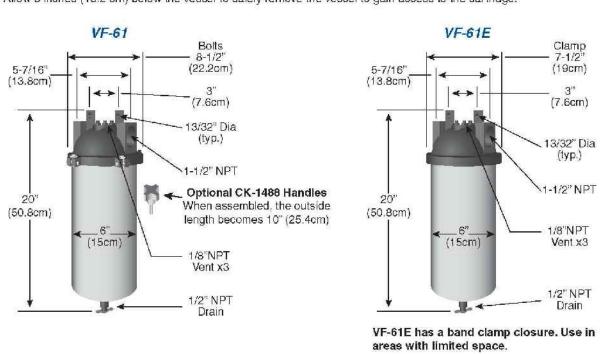
2105-R1 10/11

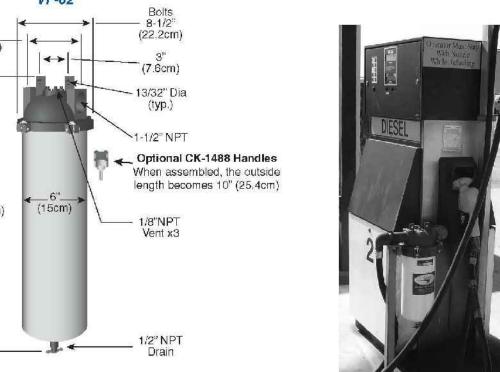
32-1/2" (81.92cm)

VF-62 has a longer body for areas and applications that require higher flow rate.

DIMENSIONAL DRAWINGS

Please note: Drawings are not to scale. Dimensions are shown for estimating purposes only. Allow 6 inches (15.2 cm) below the vessel to safely remove the vessel to gain access to the cartridge.





FILTER CARTRIDGE SELECTION TABLE

Housing P/N	Product being filtered	Application	Cartridge P/N	Data Sheet	Туре	Micron	Flow Rate (GPM)
			ACO-512P3L	1001	Aquacon®	0.3	5-50
	Jet Fuel &		ACO-51201L	1681	(Absorbent)	0.5	5-50
	Avgas ⁽¹⁾		OS-51288	1858	Coalescer/ Separator	0.5	Jet: 5-35 Avgas: 5-45
	Mo-gas		AC-51205	1582	Aquacon®	5	5-50
		Dirt & Free	AD-51225	1655	(Absorbent)	25	15-50
	Diesel ^{: n}	water	OS-51286	2118	Coalescer/ Separator	5	5-18
VF-61, VF-61E	Biodiesel	2	AD-51225	1655	Aquacon® (Absorbent)	25	15-50
	Oil.	1	AC-51205	1582	700	5	Varies with oil
	Oils		AD-51225	1655	Aguacon [®] (Absorbent)	25	viscosity ⁽²⁾
	Solvents	1	ASL-51201	1692	(Absolbeilt)	1	5-50
	-		FO-512PL1/2			0.5	
	ALL	Dirt	FO-512PL05	1549	Paper Filter	5	Fuels: 5-50 Oils: Varies with
	ALL	DIE	FO-512PL25			25	oil viscosity ⁽³⁾
			FOS-512PL25	1734	Synthetic Filter	25	,
	Jet Fuel & Avgas ^d :		ACO-52401L	1681		0.5	10-100
	Motor Gasoline		AC-52405	1582		5	10-100
	Diesel ⁽¹⁾	Dirt & Free	A.D. FOXOE	1655		25	00.400
	Biodiesel	water	AD-52425	1055	Aquacon [®] (Absorbent)	25	30-100
VF-62	Oils		AC-52405	1582		5	Varies with viscosity
	Olis		AD-52425	1655		25	See Form #1709
	Solvents		ASL-52401	1692		1	10-100
			FO-524PL1/2			0.5	
	ALL	Dirt	FO-524PL05	1549	Paper Filter	5	2-100
			FO-524PL25			25	

(1) For aviation and diesel fuel applications, always install a differential pressure gauge or other means of determining differential pressure.

(2) See Data Sheet #1709 for absorbent cartridge (AC, AD) flow rates.

(3) See Data Sheet # 1532 for paper filter (FO) flow rates, see Data Sheet # 1747 for synthetic filter (FOS) flow rates. Please consult installation instructions and operating procedures that accompany products for more

SPECIFICATIONS

Cartridges

Filter Housing VF-61, VF-61E, VF-62 • Maximum Operating Pressure: 150 psi Inlet/Outlet Connection: 1½" NPT Closure Seal: Buna-N O-Ring (P/N G-0986)

• 1/2" brass petcock vent valve and 1/2" drain valve Material: VF-61, VF-62: Die cast aluminum head and closure clamp assembly; carbon steel shell with

epoxy coated exterior and interior. » VF-61E: Die cast aluminum head; stainless steel band clamp: carbon steel shell with epoxy coated exterior and interior.

» VF-61: 10 lbs., Shipping Weight: 12lbs. VF-61E: 8 lbs., Shipping Weight: 10 lbs. » VF-62: 16 lbs., Shipping Weight: 18 lbs.

Collapse Strength: 75 psi (5 bar) • pH Range: 5 - 9 Nominal Filtration Efficiency: 98%

Maximum Operating Temperature: 200°F

ORDERING INFORMATION • Specify Model VF-61, VF-61E, or VF-62 Filter · Unit is supplied with G-0986 Buna-N O-Ring and

1/6" valve and 1/2" drain plug installed. 1/2" petcock drain valve is shipped loose. • Cartridges are not supplied and must be ordered separately.

Viton O-Rings (P/N G-0986A) are available but must

be ordered separately. They are recommended for

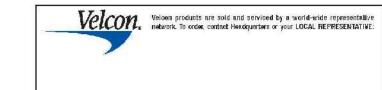
RECOMMENDED SPARES

• 1 each G-0986 Buna-N O-Ring • If Viton O-Rings are desired, 2 each G-0986A 6 each Cartridges

gasoline and solvent applications.

CAUTION -

To protect the fuel system, including the filter Do not use Aquacon® absorbent cartridges (AC, ACO, housing & other components, be sure to install AD or ASL Series) with pre-mixed jet fuel containing pressure relief valve(s).



Colorado Springs, CO 90907-3410 Phone: 1.800.531.0180 / 1.719.531.5855 Fax: 719.531.5690 e-mall: vfsales@velcon.com www.velcon.com MANUFACTURING PLANTS LOCATED AT folorado Springo, Octorado y adauga. Alabama oniyotta. Oldahoma. OFFICES AND AFFILIATES IN:

COMPANY HEADQUARTERS:

elcon Filters, LLC 210 Garden of the Gods Road



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LOGAN, UTAH 81321 American

3977 AVIATION LOOP, SANFORD, FLORIDA 32773 PHONE: (631) 586-2000

LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

FUELING SYSTEM EQUIPMENT SPECIFICATIONS

SEAL & SIGNATURE

SHEET DESCRIPTION:

PROJECT NO.: AEAC-LOGAN DRAWING BY: MSK CHK. BY:

> CADD FILE NO. LOGAN-CACHE-Set.dwg

M-240

DATE: **DECEMBER 2019**

FILTER ELEMENT (VELCON ACO-51201L)

NOT TO SCALE

ELECTRICAL NOTES

CONTRACTOR SHALL PROTECT AND SUPPORT ALL EXISTING STRUCTURES AND EQUIPMENT ADJACENT TO THE WORK AND PROJECT, SUPPORT AND RELOCATE, IF NECESSARY, ALL EXPOSED LINES AND MAKE COMPLETE RESTORATION OF DAMAGED PIPING, CONDUITS, WIRING, CABLES AND APPURTENANCES AT NO COST TO THE OWNER OF SAID UTILITIES, AUTHORITY OR ENGINEERS.

ALL WORK SHALL BE DONE BY A LICENSED ELECTRICIAN IN COMPLIANCE WITH REGULATIONS OF THE FOLLOWING CODES/AGENCIES/UTILITIES:

(A) LOCAL UTILITY AUTHORITY

(B) LOCAL BUILDING AND FIRE CODES (C) ALL APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION

(NFPA) CODES (D) ALL APPLICABLE BUILDING OFFICIAL & CODE ADMINISTRATORS.

(BOCA) CODES

(E) ALL LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS. (F) ALL LOCAL, STATE, AND FEDERAL ENVIRONMENTAL PROTECTION.

(G) DESIGN SAFETY STANDARDS FOR ELECTRICAL SYSTEMS (OSHA) (H) ANY OTHER PUBLIC AGENCIES HAVING JURISDICTION.

UTILITY INTERRUPTIONS MUST BE REQUESTED NO LESS THAN (72) HOURS PRIOR

TO NEED AND MAY NOT BE GRANTED FOR THE TIME REQUESTED IF CONDITIONS SO WARRANT. FOR TIE-IN TO EXISTING UTILITIES, COORDINATION MUST BE MADE WITH THE CONTRACTING OFFICER IN ORDER TO ASSURE A MINIMUM OF INCONVENIENCE TO ALL CONCERNED

THE DRAWINGS DO NOT INDICATE ALL OF THE EXISTING EQUIPMENT, DEVICES, WIRING, STRUCTURES, PIPING, ETC., EITHER EXPOSED OR CONCEALED. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN OR VERIFY THE EXACT LOCATION OF ALL THE EXISTING ITEMS THAT AFFECT THE WORK.

THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATE THE GENERAL ARRANGEMENT OF THE VARIOUS SYSTEMS AND THE APPROXIMATE/RELATIVE LOCATIONS OF THE EQUIPMENT/DEVICES/ITEMS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THAT THERE IS ADEQUATE SPACE AT THE LOCATIONS INDICATED FOR ALL THE EQUIPMENT/DEVICES/ITEMS PRIOR TO INSTALLATION OF SAME.

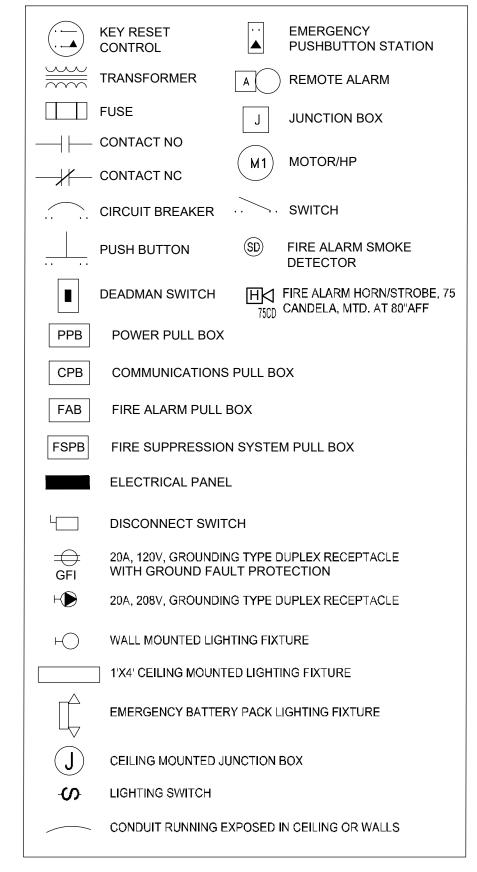
ALL WORK SHALL BE GROUNDED AS INDICATED ON THE DRAWINGS AND/OR AS REQUIRED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODES.

ALL EQUIPMENT SHALL BE INSTALLED AND WIRED IN STRICT COMPLIANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER.

THE CONTRACTOR SHALL PROVIDE EXPLOSION PROOF ELECTRICAL WIRING, EQUIPMENT AND DEVICES SUITABLE FOR INSTALLATION IN CLASS 1, DIVISION 1, GROUP C AND D LOCATIONS FOR AS REQUIRED BY NEC SECTIONS 501 AND 514 FOR THIS TYPE OF INSTALLATION.

THE CONTRACTOR SHALL PROVIDE SEAL-OFF FITTINGS AS SHOWN ON THE DRAWINGS, AND WHERE CONDUITS EGRESS OR INGRESS CLASS 1, DIVISION 1 AREAS, AND/OR AS REQUIRED BY NEC SECTIONS 501 AND 514.

ELECTRICAL SYMBOL LEGEND



NOTE:

NOT ALL OF THE SYMBOLS SHOWN ABOVE ARE NECESSARILY USED ON THIS PROJECT

NOTES

- 1. POWER AND CONTROL WIRES SHALL BE RUN IN SEPARATE CONDUITS.
- 2. ALL WIRING TO BE XHHW-2 INSULATED AND GROUNDED AS PER NEC AND NFPA 514. 3. ALL CONDUITS EXITING THE HAZARDOUS AREAS ARE TO BE SEALED WITH EPOXY FILLED
- SEALING FITTINGS PRIOR TO ENTRY INTO A NON-HAZARDOUS ZONES. 4. SEAL FITTINGS ARE REQUIRED AT EACH SENSOR BUT ARE NOT SHOWN FOR SIMPLICITY.
- 5. ALL CONDUITS TO MEET LATEST REQUIREMENTS OF NATIONAL ELECTRIC CODE.
- 6. (NFPA 70) AND THE AUTOMOTIVE AND MARINE SERVICE STATION CODE (NFPA 30A).
- 7. FOR EXACT AMOUNT AND SIZE OF LOW VOLTAGE CONTROL WIRES REFER TO MANUFACTURER'S RECOMMENDATIONS.
- 8. UNDERGROUND CONDUITS RUNNING FROM ELECTRICAL PANEL OR CONTROL EQUIPMENT TO DISPENSERS TO BE THREADED RIGID METAL.
- 9. ALL UNDERGROUND CONDUITS SHALL BE ENCASED IN CONCRETE.
- 10. EMERGENCY DISCONNECT SWITCHES.

AN APPROVED, CLEARLY IDENTIFIED AND READILY ACCESSIBLE EMERGENCY DISCONNECT SWITCH SHALL BE PROVIDED AT AN APPROVED LOCATION, TO IMMEDIATELY SHUT DOWN THE TRANSFER OF FUEL TO THE FUEL DISPENSERS IN THE EVENT OF A FUEL SPILL OR OTHER EMERGENCY. AN EMERGENCY DISCONNECT SWITCH FOR EXTERIOR FUEL DISPENSERS SHALL BE LOCATED

WITHIN 100 FEET (30480 MM) OF, BUT NOT LESS THAN 20 FEET (6096 MM) FROM, THE FUEL DISPENSERS. FOR INTERIOR FUEL-DISPENSING OPERATIONS, THE EMERGENCY DISCONNECT SWITCH SHALL BE INSTALLED AT AN APPROVED LOCATION. AN APPROVED SIGN SHALL BE POSTED ON OR IMMEDIATELY ADJACENT TO SUCH DEVICES AND SHALL READ: EMERGENCY FUEL SHUTOFF. SUCH EMERGENCY DISCONNECT SWITCHES SHALL BE OF A TYPE THAT IS RESET MANUALLY

- 11. AT ALL TIMES THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITION OF JOB SITE, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY AND FOR ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS. THE ENGINEERS JOB SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTORS SAFETY MEASURES.
- 12. THE CONTRACTOR SHALL MAKE AN EXAMINATION OF THE SITE. HE SHALL COMPARE THE SITE. WITH THE DRAWINGS AND SPECIFICATIONS AND SATISFY HIMSELF AS TO CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. HE SHALL ASCERTAIN AND CHECK THE LOCATIONS OF ANY EXISTING STRUCTURES OR EQUIPMENT WHICH MAY AFFECT THIS WORK, NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE IN HIS BEHALF FOR ANY EXPENSE TO WHICH HE MAY BE PUT DUE TO FAILURE OR NEGLECT ON HIS PART TO MAKE SUCH EXAMINATION.
- 13. ALL WORK SHALL BE COORDINATED WITH THE OWNER TO MAINTAIN CONTINUITY OF SERVICE AND MAXIMUM UTILIZATION OF THE OWNERS FACILITY. ALL WORK SHALL BE BID ON A 'NORMAL TIME' BASIS WITH PREMIUM TIME IN ADDITION ONLY AS AUTHORIZED FOR CORE BORING OR OTHER WORK WHICH WILL BE NOISY, DIRTY OR OTHERWISE OBSTRUCT THE WORK PROCESS.
- 14. THE CURRENT ISSUE OF ALL NFPA, CEC, CBC, UBC, UFC, ANSI, OSHA, ASTM, NEMA, AND OTHER NATIONALLY PUBLISHED CODES OR STANDARDS, AS WELL AS STATE AND LOCAL CODES AND ORDINANCES, SHALL APPLY TO THIS WORK WHETHER ADOPTED BY LOCAL AGENCIES OR NOT. THE MOST STRINGENT CODE SHALL APPLY.
- 5. NOTHING ON THE DRAWINGS OR SPECIFICATIONS INTENDED TO ALLOW A VIOLATION OF ELECTRICAL WORKING SPACE AROUND ELECTRICAL EQUIPMENT. A 30"W MIN x 48"D x 6'-6"H SPACE SHALL BE CLEAR TO THE FLOOR IN FRONT OF ALL ELECTRICAL PANELS, CONTROLS OR ITEMS THAT REQUIRE MAINTENANCE OR ACCESS WHILE ENERGIZED. ANY DEVIATION FROM THIS MINIMUM SHALL BE APPROVED IN WRITING.
- 6. ALL CONDUITS SHALL RUN TIGHT TO SLAB AND BEAMS. WHERE EQUIPMENT IS INSTALLED TIGHT TO SLAB, RUN CONDUIT BELOW OR ABOVE AS TIGHT TO EQUIPMENT AS POSSIBLE.
- 17. DO NOT SUPPORT CONDUITS FROM DUCTS, MECHANICAL SUPPORTS OR EQUIPMENT OF ANY
- 18. ALL CABLES, CONDUITS, PIPING OR EQUIPMENT LOCATIONS AND ELEVATIONS ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR FIELD CHECKING AND MAKING ALL NECESSARY OFFSETS, AS REQUIRED, TO AVOID EXISTING INTERFERENCES AND COORDINATE WITH OTHER TRADES.
- 19. IDENTIFY EACH CONDUCTOR BY SHRINK-ON INDIVIDUALLY MARKED BRADY-TAGS AND EACH ELECTRICAL ITEM BY BLACK-WHITE-BLACK ENGRAVED SCREW-ON PLASTIC NAMEPLATE, LEGEND PER DRAWING.
- 20. ALL GROUND WIRES SHALL BE SEGREGATED FROM PHASE CONDUCTORS IN CONDUITS TO MINIMIZE GROUND LOOPS.
- 21. ELECTRICAL DESIGN BASED UPON TYPICAL VENDOR EQUIPMENT. COORDINATE FINAL INSTALLATION WITH ACTUAL EQUIPMENT FURNISHED.
- 22. THE CONTRACTOR SHALL PROVIDE ALL FUSES REQUIRED FOR PROJECT POWER INCLUDING ANY FUSES BLOWN DURING INITIAL TESTING.
- 23. BONDING JUMPERS SHALL BE INSTALLED TO INSURE CONTINUITY WHERE CONDUIT CONNECTIONS AT CONCENTRIC KNOCKOUTS ARE TO SERVE AS A GROUND.
- 24. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO ALL WALLS, FLOORS AND PAVING. IF DAMAGE OCCURS DURING CONSTRUCTION. THEY SHALL COORDINATE WITH OWNER TO PATCH, PAINT AND REPAIR TO MATCH EXISTING CONDITIONS.
- 25. ABOVEGROUND CONDUIT SHALL BE RIGID STEEL.
- 26. UNDERGROUND CONDUIT SHALL BE PVC W/RGS RISERS EXCEPT WHERE ENTERING PANEL OR SWITCHGEAR. PROVIDE CONDUIT SEAL-OFFS AS REQUIRED BY CODE.
- 27. MINIMUM BURIAL DEPTH FOR UNDERGROUND CONDUITS SHALL BE 24".

	Date							
\leq	No.							
ISSUES/REVISIONS	Description							

NOTICE IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A PROFESSIONAL

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LE AVIATION

LEADING EDGE AVIATION 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

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3977 AVIATION LOOP, SANFORD, FLORIDA 32773 PHONE: (631) 586-2000

INSTALLATION OF A NEW ABOVE GROND FUEL TANK LEADING EDGE AVIATION LOGAN-CACHE AIRPORT 2500 NORTH AIRPORT DRIVE LOGAN, UTAH 81321

SHEET DESCRIPTION:

ELECTRICAL NOTES

SEAL & SIGNATURE

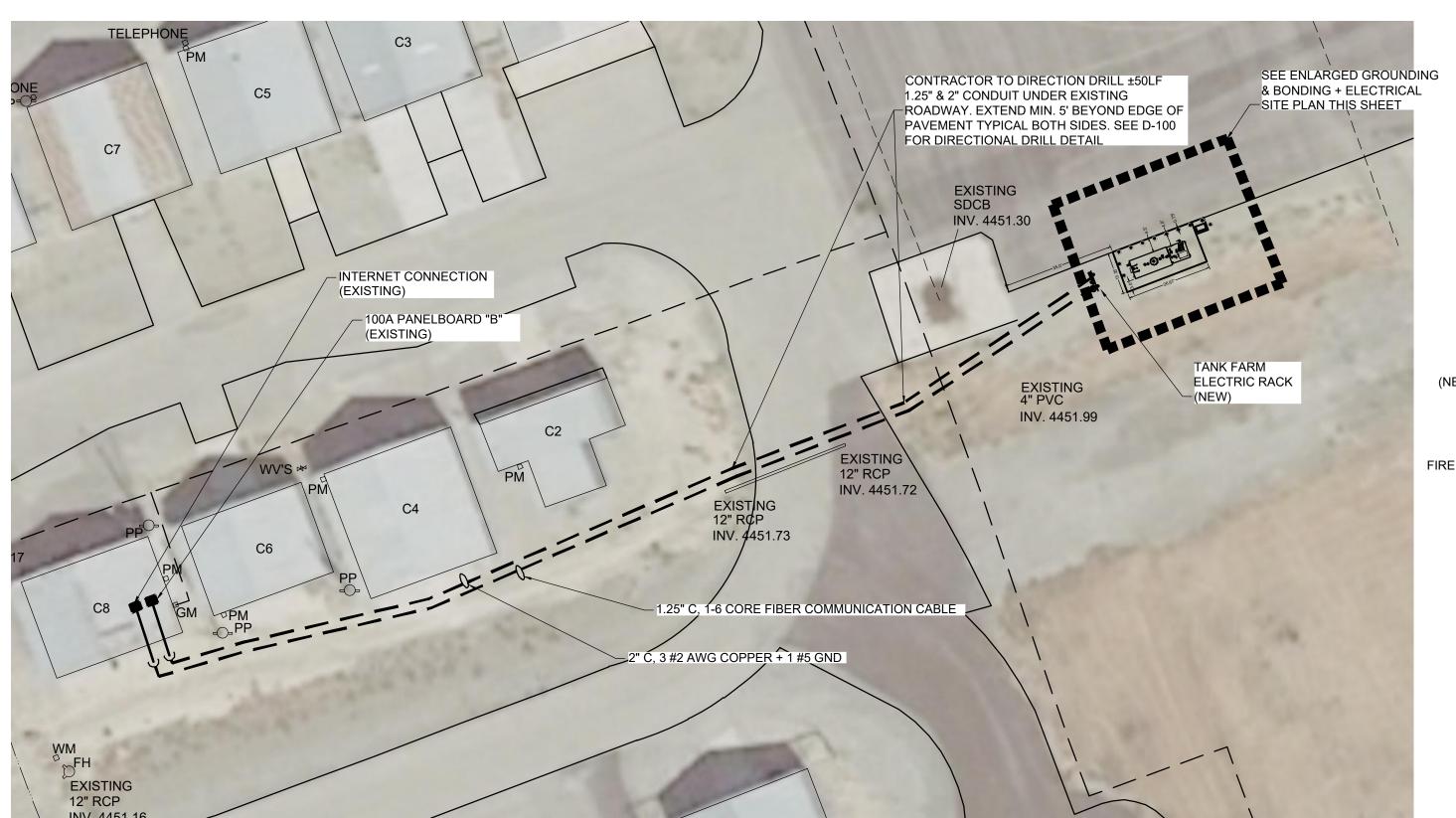
DATE: **DECEMBER 2019** PROJECT NO.: AEAC-LOGAN DRAWING BY: MSK

> DWG No: E-100

CHK. BY: AGN

CADD FILE NO. LOGAN-CACHE-Set.dwg

BRIAN E. LEWIS, P.E. UTAH P.E. # 5013586-2203 EXP. DATE: 3/31/2021



SUB-PANEL "B2" (NEW) INSTALLED ON UNI-STRUT OUTSIDE OF NEC HAZARD ZONE, SEE SHEET E-400 6" CONCRETE FILLED STEEL NEW 4'X4'X6" CONCRETE BOLLARDS, TYP. SET 0.75' SLAB REINFORCED W/6X6, 10/10 W.W.M. W/MIN 4" INSIDE TANK SLAB SEE - REVEAL ABOVE FINAL GRADE -BOLLARD DETAIL SHEET D-100 _EXIST EOP _EXIST EOP (NEW) SUB-PANEL "B2" E-STOP-- NEW QT PETROLEUM ON DEMAND "QT POD" AUTOMATED FUELING TERMINAL CARD READER (MODEL M-4000), SEE FIRE EXTINGUISHER -SPECIFICATION PLAN SHEET M-230 - ELECTRIC REWIND HOSE REEL TANK FARM ELECTRIC RACK (NEW) □ NEW 8" THICK REINFORCED — NEW 2,000 GALLON ABOVE -SUCTION PUMP CONCRETE TANK SLAB. SEE GROUND STORAGE TANK, D.W. DISPENSER & TANK LAYOUT & SLAB STEEL (UL-2085) W/6' PLATFORM. PLATFORM SECTION SHEET D-100 SEE TANK SHOP DRAWING

ENLARGED ELECTRICAL SITE PLAN

SCALE: 1" = 5'

SHEET M-100

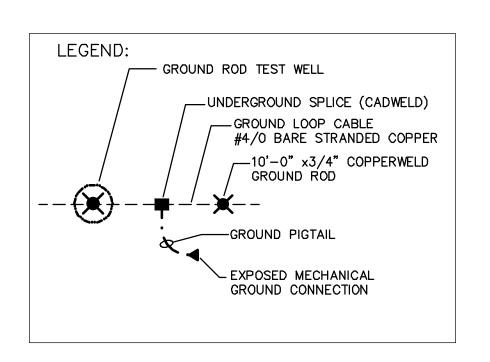


ELECTRIC CONDUIT DEPICTED DIAGRAMMATICALLY, ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD. CONTRACTOR SHALL INSTALL CONDUIT TO MAINTAIN MINIMUM 10' SEPARATION FROM EXISTING DRAINAGE OR WATER LINES.

OVERALL ELECTRICAL SITE PLAN

SCALE: 1" = 30"





	BILL OF MATERIALS	
ITEM	ITEM	MANUFACTURER
	3/4" x 10'-0" COPPER CLAD GROUND ROD	_
2	#4/0 AWG BARE COPPER WIRE	_
(3)	#2 XHHW—2 AWG GREEN COPPER WIRE	_
4	CONDUIT PVC 3/4" SCH 40	_
(5)	CADWELD WELD METAL	CADWELD 115
6	CADWELD WELD METAL	CADWELD 150
7	CADWELD TYPE "TA" #4/0 - #2 HORIZONTAL TEE MOLD	CADWELD TAC-2Q1V
8	CADWELD TYPE "TA" #4/0 — #4/0 HORIZONTAL TEE MOLD	CADWELD TAC-2Q2Q
9	#4/0 XHHW-2 AWG GREEN INSULATED COPPER WIRE	BURNDY GAR6426
(10)	CADWELD TYPE "RJ" 4/0 CABLE TO #8 REBAR MOLD	CADWELD RJE-562Q
(11)	CADWELD TYPE "GT" #4/0 - 3/4" GROUND ROD MOLD	CADWELD GTC-182Q
(12)	COMPRESSION LUG FOR #2 AWG COPPER WIRE	BURNDY YAZC-2LN
	NOTE: FOR INFORMATION PURPOSES ONLY, QUANTITIES MAY BE APP	PROXIMATE

GROUNDING NOTES

1. FOR ELECTRICAL ABBREVIATIONS, LEGEND, NOTES & SPECIFICATIONS, SEE DWG E-100.

2. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY ONLY AND IS NOT INTENDED TO SHOW EXACT EQUIPMENT LOCATION OR CONDUIT ROUTING. THE ELECTRICAL CONTRACTOR SHALL DETERMINE, IN THE FIELD, THE BEST ROUTING TO AVOID ANY INTERFERENCE WITH EXISTING UNDERGROUND UTILITIES, EXISTING ABOVEGROUND STRUCTURES OR OTHER EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL FOLLOW EQUIPMENT MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION AND

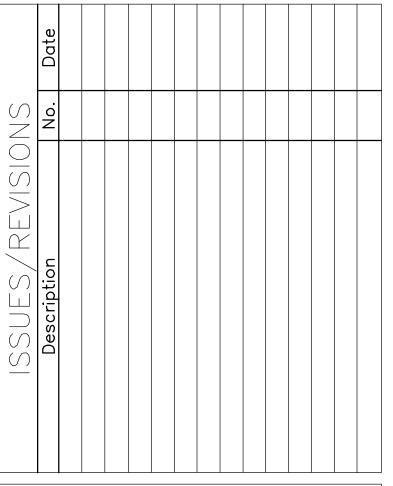
- TERMINATION OF CONDUIT AND WIRING.

 3. GROUND CONNECTORS AT MAIN GROUND LOOP SHALL BE MADE USING EXOTHERMIC CONNECTIONS, SIMILAR TO "CADWELD" OR APPROVED EQUAL.
- 4. THE NEW GROUND LOOP CABLE SHALL BE CONTINUOUS.
- GROUNDING CABLE SHALL BE INSTALLED WITHOUT SHARP BENDS OR KINKS, AND WHERE BENDS OR LOOPS ARE REQUIRED, THEY SHALL BE MADE WITH AS LARGE A RADIUS AS POSSIBLE.
- ALL CONNECTIONS TO BE GROUNDED, CONNECTED OR BONDED MUST BE MADE TO CLEAN AND BRIGHT METAL SURFACES.
- 7. ELECTRICAL CONTRACTOR SHALL VERIFY GROUND CONNECTIONS POINTS ON COMPRESSOR AND DRYER SKIDS.
- 8. BURIED GROUND WIRE SHALL BE A MINIMUM OF 24 INCHES BELOW FINISHED GRADE.
- 9. GROUNDING SHALL BE PERFORMED AS SPECIFIED IN THE 2008 NEC, ARTICLE 250.

- 10. GROUND WIRES THRU CONCRETE SHALL HAVE A SLEEVE THAT EXTENDS 4" ABOVE GRADE. THE SLEEVES SHALL BE SCHEDULE 40 PVC PIPE FILLED WITH GE RTV SILICONE, AFTER GROUND WIRE HAS BEEN INSTALLED.
- 11. #4/0 BARE COPPER GROUND WIRE SHALL BE RUN IN
- TRENCH WITH POWER CONDUITS AND CONTROL CONDUITS.

 12. USE COUPLING AND DRIVING STUD TO DRIVE GROUND ROD
- TO AVOID MUSHROOMING.
- 13. BOND TOGETHER ALL CONDUIT STUB-UPS IN SAME LOCATION AND CONNECT TO MAIN GROUND CABLE.
- 14. THE NEW GROUNDING SYSTEM SHALL BE TESTED TO SHOW A
- RESISTANCE TO GROUND OF NO MORE THAN 25 OHMS.

 15. GROUND TESTS CALLED FOR IN NOTES 14 SHALL BE
- CARRIED OUT USING A "DEDICATED GROUND TESTER".
- 16. REMOVABLE GUARD POSTS HAVE SUBSTANTIAL CONCRETE FOOTING SEE POST GROUNDING DETAIL ON THIS DRAWING. ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATION OF GROUND LOOP TO AVOID THESE FOOTINGS.
- 17. EACH VESSEL SHALL BE GROUNDED.
- 18. ALL CONDUITS IN PULL BOX SHALL BE BONDED TOGETHER AND CONNECTED TO MAIN GROUND LOOP WITH #2AWG COPPER WIRE.



NOTICE

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INSTALLATION OF A NEW
ABOVE GROND FUEL TANK
LEADING EDGE AVIATION
LOGAN-CACHE AIRPORT
2500 NORTH AIRPORT DRIVE

LOGAN, UTAH 81321
SHEET DESCRIPTION:

ELECTRICAL SITE, GROUNDING & BONDING PLAN

SEAL & SIGNATURE

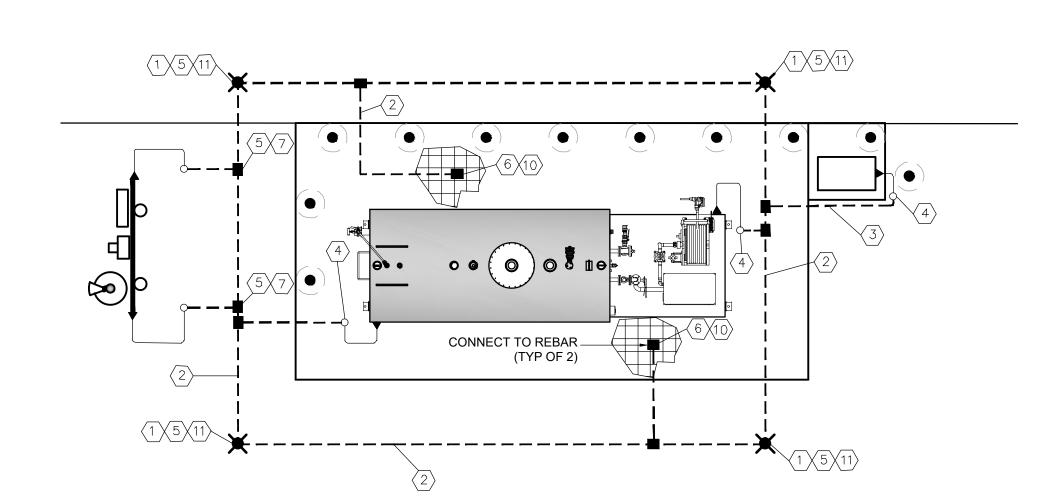
DATE: DECEMBER 2019

PROJECT NO.: AEAC-LOGAN

CHK. BY: AGN
DWG No: **E-200**

DRAWING BY: MSK

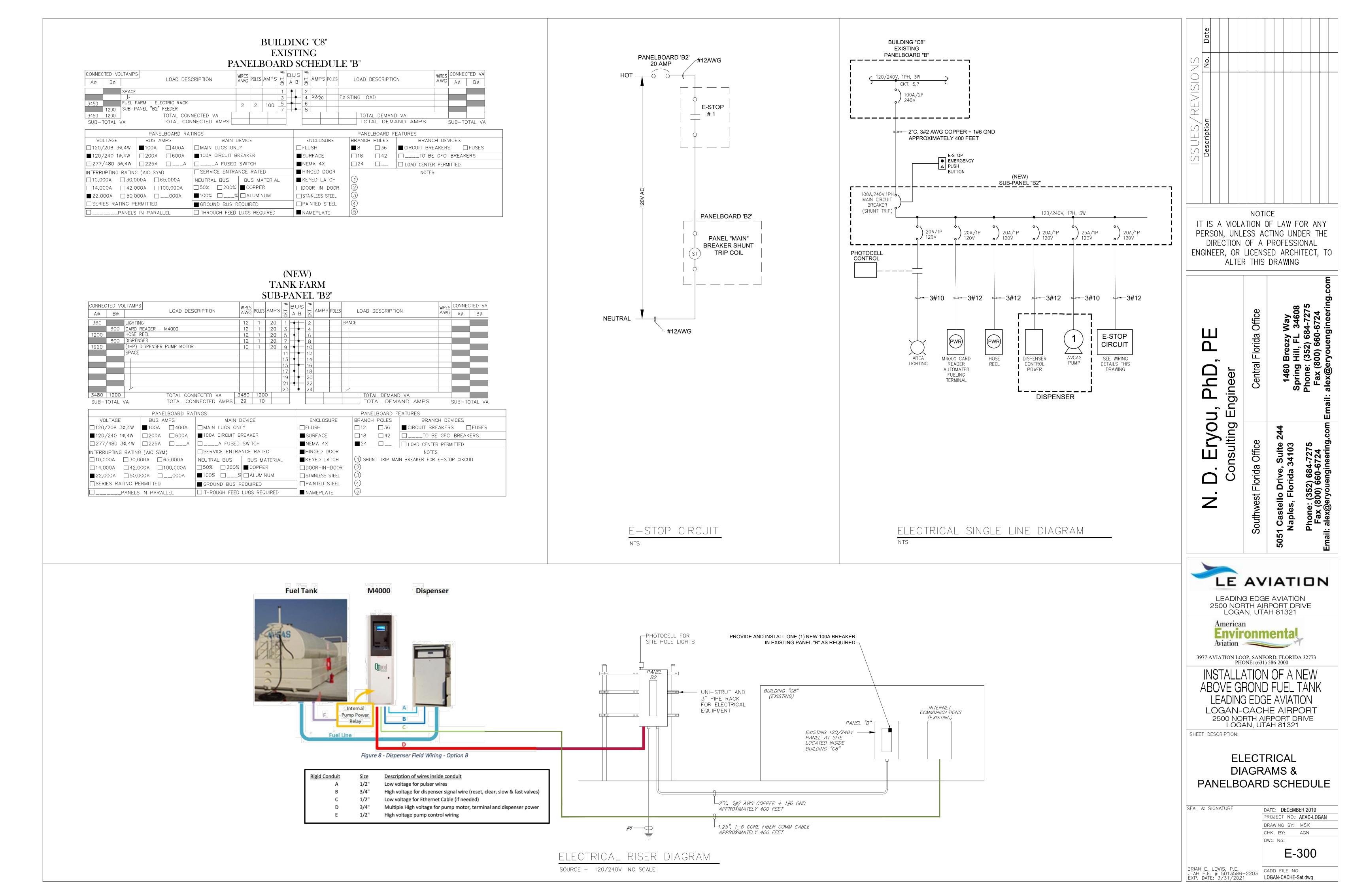
BRIAN E. LEWIS, P.E. UTAH P.E. # 5013586-2203 EXP. DATE: 3/31/2021 CADD FILE NO. LOGAN-CACHE-Set.dwg

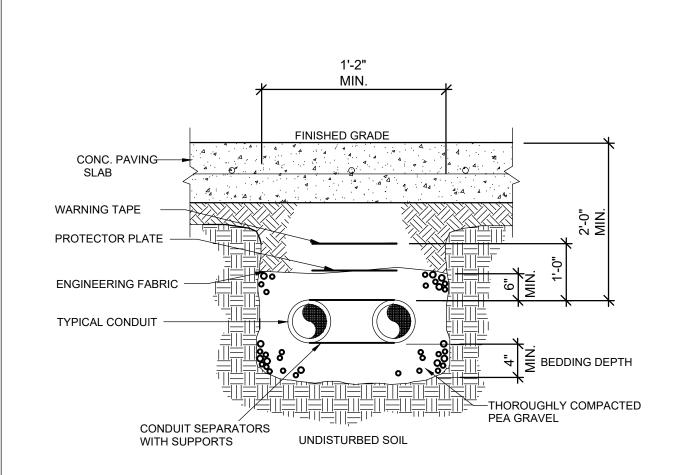


ENLARGED GROUNDING, BONDING SITE PLAN

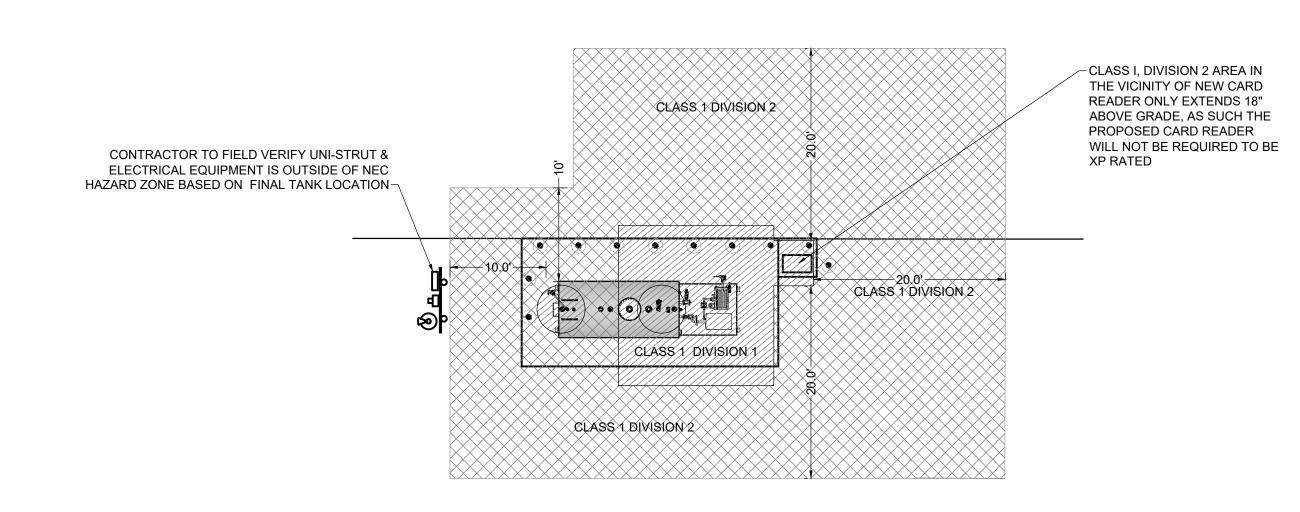
SCALE: 1" = 5"





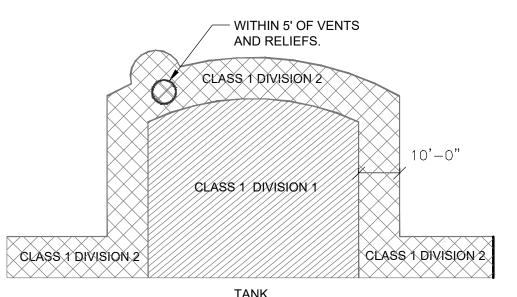






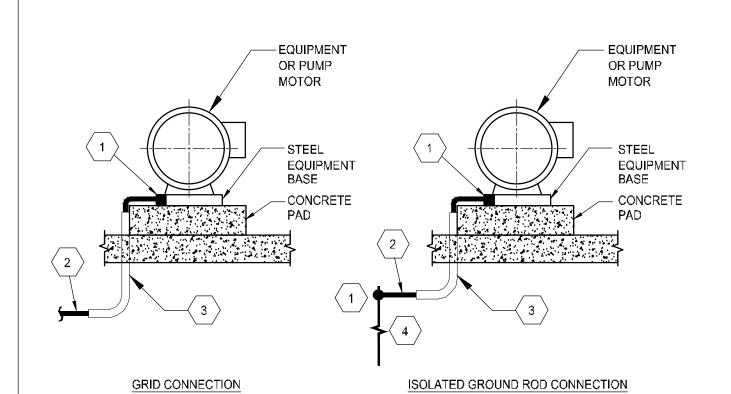
NEC HAZARD ZONE DEFINITION PLAN

SCALE: 1" = 10'



ABOVE GROUND TANK ELEVATION HAZARDOUS AREAS

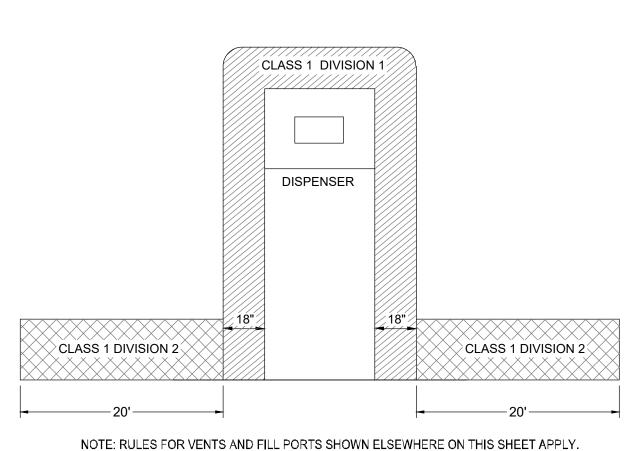
NTS



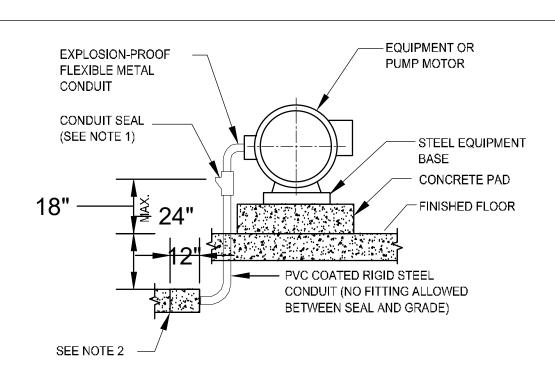
TYPICAL EQUIPMENT FRAME GROUNDING CONNECTION DETAILS

NOT TO SCALE

- 1. EXOTHERMIC WELD CONNECTION (GROUND BOND CONNECTION)
- 2. COPPER CONDUCTOR TO MAIN GROUNDING GRID, UNLESS NOTED: #6 LIGHT FIXTURE STANDARDS #1/0 FUEL PUMPS FILTER SEPARATORS.
 - #6 F/S #4 OTHER MOTORS. #6 MISCELLANEOUS EQUIPMENT AND METALLIC STRUCTURES.
- 3. 1" SCH. 40 PVC CONDUIT STUB-UP THRU SLAB/FOUNDATION, ADJACENT TO EQUIPMENT FRAME, SEAL CONDUIT WITH JET FUEL
- SEALANT. CORE DRILL EXISTING SLABS WHERE REQUIRED. 4. 10' X 3/4" COPPER CLAD GROUND ROD.



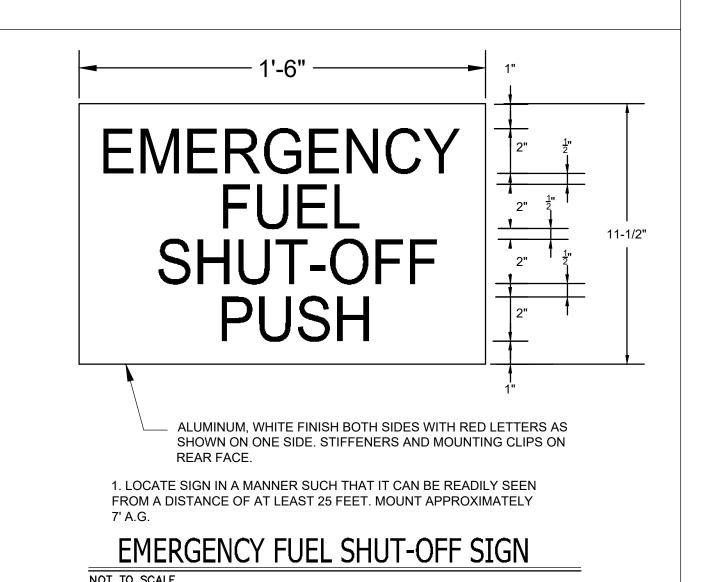
DISPENSING EQUIPMENT HAZARDOUS AREA DEFINITION

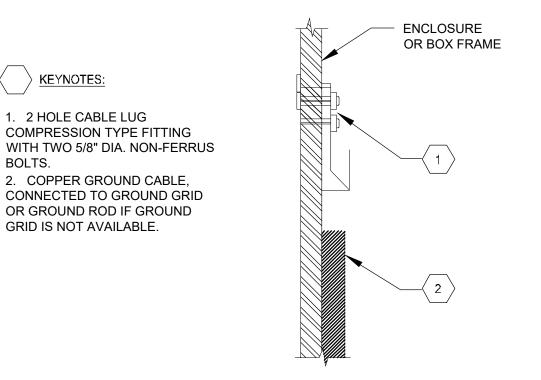


TYPICAL EQUIPMENT MOTOR CONNECTION DETAIL

NOT TO SCALE

- 1. IF SEAL IS GREATER THAN 18" FROM MOTOR TO TERMINAL BOX, A SECOND SEAL MUST BE INSTALLED AT MOTOR TERMINAL BOX.
- 2. MAKE TRANSITION TO CONCRETE-ENCASED SCHEDULE 40 PVC.





TYPICAL EQUIPMENT ENCLOSURE BOLTED GROUNDING CONNECTION DETAIL

HAZARDOUS CLASSIFICATION LEGEND: NOTE: SPACE IN VAULT (WHERE APPLICABLE) IS A CLASS 1

DIVISION 1 HAZARDOUS AREA.

THIS DRAWING REPRESENTS GENERAL IDENTIFICATION OF HAZARDOUS AREA CLASSIFICATIONS. REFER TO THE

DRAWINGS, SPECIFICATIONS AND N.E.C. ARTICLE 500 FOR ADDITIONAL SPECIFIC REQUIREMENTS.

HAZARDOUS LOCATION: CLASS 1, DIVISION 2, GROUP D

HAZARDOUS LOCATION: CLASS 1, DIVISION 1, GROUP D

NEC ARTICLE 515

OUTDOOR EQUIPMENT: OF THE TYPE COVERED IN FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE, NFPA 30-1990 (ANSI), SECTION 5-3.3.2 WHERE FLAMMABLE VAPOR-AIR MIXTURES MAY EXIST UNDER NORMAL OPERATION. DIVISION 1: SPACE WITHIN 3 FEET OF ANY EDGE OF SUCH EQUIPMENT, EXTENDING IN ALL DIRECTIONS.

> DIVISION 2: SPACE WITHIN 3 FEET AND 8 FEET OF ANY EDGE OF SUCH EQUIPMENT, EXTENDING IN ALL DIRECTIONS. ALSO SPACE UP TO 3 FEET ABOVE FLOOR OR GRADE LEVEL WITHIN 3 FEET TO 10 FEET FROM ANY EDGE OF SUCH EQUIPMENT.

VENTING DISCHARGE UPWARD:

DIVISION 1: WITHIN 3 FEET OF OPEN END OF VENT, EXTENDING IN ALL DIRECTIONS.

DIVISION 2: SPACE BETWEEN 3 FEET AND 5 FEET OF OPEN END OF VENT, EXTENDING IN ALL DIRECTIONS.

REMOTE PUMP-INDOOR:

DIVISION 1: ANY PIT, BOX, OR SPACE BELOW GRADE LEVEL IF ANY PART IS WITHIN A HORIZONTAL DISTANCE OF 10 FEET FROM ANY

DIVISION 2: WITHIN 3 FEET OF ANY EDGE OF PUMP, EXTENDING IN ALL DIRECTIONS. ALSO UP TO 18 INCHES ABOVE GRADE LEVEL WITHIN 10 FEET HORIZONTALLY FROM ANY EDGE OF PUMP.

GROUNDING NOTES:

1) GROUNDING AND BONDING, CLASS I, DIVISIONS 1 AND 2. WIRING AND EQUIPMENT IN CLASS I, DIVISION 1 AND 2 LOCATIONS SHALL BE GROUNDED AS SPECIFIED IN ARTICLE 250 AND IN ACCORDANCE WITH THE REQUIREMENTS OF NEC ARTICLE 501.30 (A) AND (B). AS

FITTINGS OR OTHER APPROVED MEANS OF BONDING SHALL BE USED. SUCH MEANS OF BONDING SHALL APPLY TO ALL INTERVENING RACEWAYS, FITTINGS, BOXES, ENCLOSURES, AND SO FORTH BETWEEN CLASS I LOCATIONS AND THE POINT OF GROUNDING FOR SERVICE EQUIPMENT OR POINT OF GROUNDING OF A SEPARATELY DERIVED SYSTEM.

POINT WHERE THE GROUNDED CIRCUIT CONDUCTOR AND THE GROUNDING ELECTRODE ARE CONNECTED TOGETHER ON THE LINE SIDE OF THE BUILDING OR STRUCTURE DISCONNECTING MEANS AS SPECIFIED IN 250.32(B), PROVIDED THE BRANCH CIRCUIT OVERCURRENT PROTECTION IS LOCATED ON THE LOAD SIDE OF THE DISCONNECTING

(B) TYPES OF EQUIPMENT GROUNDING CONDUCTORS. FLEXIBLE METAL CONDUIT AND LIQUIDTIGHT FLEXIBLE METAL CONDUIT SHALL NOT BE USED AS THE SOLE GROUND-FAULT CURRENT PATH. WHERE EQUIPMENT BONDING JUMPERS ARE INSTALLED, THEY SHALL COMPLY WITH 250.102. ARTICLE 501-CLASS I LOCATIONS 501.30 2008 EXCEPTION: IN CLASS I, DIVISION 2 LOCATIONS, THE BONDING JUMPER SHALL BE PERMITTED TO BE DELETED WHERE ALL OF THE FOLLOWING CONDITIONS ARE MET:

(1) LISTED LIQUIDTIGHT FLEXIBLE METAL CONDUIT 1.8 M (6 FT) OR LESS IN LENGTH, WITH

FITTINGS LISTED FOR GROUNDING, IS USED.

(2) OVERCURRENT PROTECTION IN THE CIRCUIT IS LIMITED TO 10AMPERES OR LESS. (3) THE LOAD IS NOT A POWER UTILIZATION LOAD.

ENCLOSURES WHERE MADE UP WRENCH TIGHT.

2) METHOD OF BONDING AT THE SERVICE SHALL BE DONE IN COMPLIANCE WITH NEC ARTICLE 250.92 (B).

ELECTRICAL CONTINUITY AT THE SERVICE EQUIPMENT, SERVICE RACEWAYS AND SERVICE CONDUCTORS ENCLOSURE SHALL BE ENSURED BY ONE OF THE FOLLOWING METHODS:

1- BONDING EQUIPMENT TO THE GROUNDED SERVICE CONDUCTOR IN A MANNER PROVIDED IN 250.8.

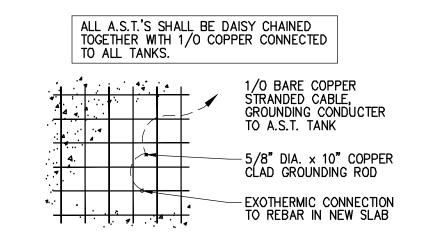
2- CONNECTIONS UTILIZING THREADED COUPLINGS OR THREADED BOSSES ON

3- THREADLESS COUPLINGS AND CONNECTORS WHERE MADE UP FOR METAL RACEWAYS

OR METAL-CLAD CABLES. 4- OTHER APPROVED DEVICES SUCH AS BONDING TYPE LOCKNUTS AND BUSHINGS

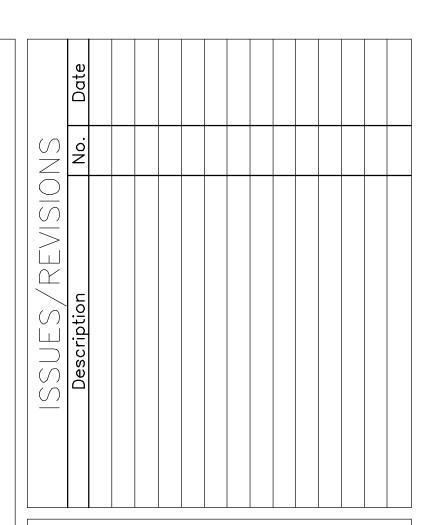
3) BONDING IN HAZARDOUS (CLASSIFIED) LOCATIONS SHALL BE IN COMPLIANCE WITH NEC ARTICLE 250.100.

REGARDLESS OF THE VOLTAGE OF THE ELECTRICAL SYSTEM, THE ELECTRICAL CONTINUITY OF THE NON-CURRENT-CARRYING METAL PARTS OF EQUIPMENT, RACEWAYS, AND OTHER ENCLOSURES IN ANY HAZARDOUS (CLASSIFIED) LOCATION AS DEFINED IN ARTICLE 500 SHALL BE ENSURED BY ANY OF THE METHODS SPECIFIED FOR SERVICES IN ARTICLE 250.92(B) THAT ARE APPROVED FOR THE WIRING METHOD USED.



AST GROUNDING DETAIL

NOT TO SCALE



NOTICE

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SHEET DESCRIPTION:

NEC HAZARD ZONE **DEFINITION PLAN** & DETAIL

SEAL & SIGNATURE DATE: **DECEMBER 2019** PROJECT NO.: AEAC-LOGAN DRAWING BY: MSK CHK. BY: AGN

E-400

CADD FILE NO. LOGAN-CACHE-Set.dwg

LOGAN – CACHE AIRPORT AUTHORITY BOARD FEBRUARY 6, 2025

ATTACHMENT E

TOWER REPAIR - Specifications Historic Tower Logan-Cache Airport	Raymond Construction	Sorensen & Gnehm Const	Paul Davis
Clean up-Remove and dispose of all debris on all levels (four levels) of the structure		3,500.00	
Tear out and remove carpet, pad, and damaged drywall	\$ 4,060.00	2,400.00	3,458.95
Tear off and remove acoustic ceiling tiles	\$ 1,150.00	2,600.00	711.74
Repair Roof			
Roof-Tear off and Dispose of existing roofing materials	\$ 8,125.00	8,430.00	1,455.32
Install new 60 mil membrane	\$ 13,329.00		2,815.63
Install flashing and curbing	\$ inc		2,435.30
Glass Repair			,
Install tempered glass to match existing material in existing frame works.	\$ 56,801.00	68,801.00	12,544.79
Replace the rotting wood sill material	\$ 3,133.00	3,200.00	, 987.97
Install flashing to preserve wood sills	\$ 2,130.00		7,139.86
Paint/seal wood sills to preserve	\$ 1,737.00		582.94
Other	<u>-</u>	18,326,20	-
	90,465.00	107,257,20	32,132,50
ALTERNATE – TOWER DEMO		, -	,
Demolish tower and dispose of all debris	\$ 62,506.00	-	_
Restore site to match surrounding area	\$ 7,887.00	-	=
	 70,393.00	-	_
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